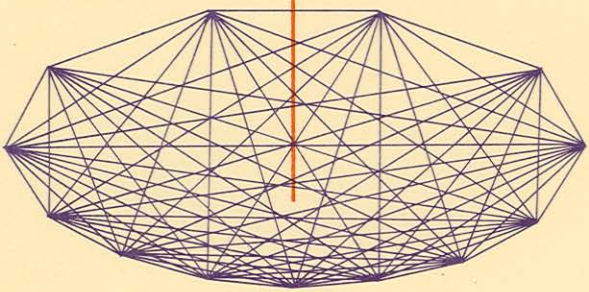
Stout State University

Menomonie, Wisconsin



GRADUATE STUDIES BULLETIN 1965-1967

STOUT STATE UNIVERSITY
Menomonie, Wisconsin

GRADUATE BULLETIN

REGULAR SESSIONS - 1965-1967

VOLUME LIV, NUMBER I JANUARY 2, 1965

The graduate program at Stout State University is fully accredited by the North Central Association of Colleges and Secondary Schools and the National Council for the Accreditation of Teacher Education. Membership is also maintained in the National Commission on Accrediting, The American Association of Colleges for Teacher Education, The American Council on Education, and the Midwest Conference on Graduate Study and Research. Women graduates of Stout State University are eligible for membership in the American Association of University Women.

THE BOARD OF REGENTS OF WISCONSIN STATE COLLEGES
(as of September 1964)

	Term Expires
David Rodli, Baldwin, President	1969
John C. Thomson, Stevens Point	1965
Donald E. Bonk, Chilton	1968
Charles F. Dahl, Viroqua	1967
Elizabeth Hawkes, Washburn, Vice President	1966
John K. Kyle, Madison	1965
Mrs. Gordon R. McIntyre, Appleton	1969
William D. McIntyre, Eau Claire	1963
Richard S. McKnight, South Wayne	1965
Eugene W. Murphy, La Crosse	1968
Donald L. Soucie, Milwaukee	1967
Mrs. Aleck E. Tilseth, Menomonie	1965

Eugene R. McPhee, Madison, Secretary and Director of Wisconsin State Universities.

Angus B. Rothwell, Madison, State Superintendent of Public Instruction (ex-officio)

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Functions; Admission; General Requirements for Graduation; Thesis and Investigation Requirements; Majors in Audio-Visual Communications, Guidance, Home Economics, Home Economics Education, Industrial Education, or Vocational Education

Description of Courses ---- 43
Psychology; General Education; Audio-Visual Education; Guidance Education; Home Economics Education; Industrial Education; Clothing and Textiles; Family Relations; Food Science, Nutrition, Dietetics, and Institution Management; Home Management and Family Economics, Related Art; General Industral Education; Electricity; Industrial Graphics; Metals; Photography; Power Mechanics; Printing; Wood Technics; Industrial Technology; English; Liberal Arts and Sciences; Science; Social Science; Speech

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COLLEGE CALENDAR

SUMMER SESSION 1965

Monday, June 21 — Summer Session Begins
Friday, July 16 — End of First Four Weeks
Monday, July 19 — Beginning of Second Four Weeks
Friday, July 30 — End of First Six Weeks
Friday, August 13 — End of Summer Session

REGULAR SESSION 1965-66

Monday, September 6 — Labor Day
Tuesday, September 7 — Admission, Registration, and Orientation for Freshman Students
Registration for Men Students Transferring from Other Colleges and Graduate Students; Women Transfer Students Register according to classification.
Wednesday, September 8 — Registration for Graduate Students, Seniors and Juniors who have not pre-registered
Thursday, September 9 — Registration for Sophomore Students who have not pre-registered
Friday, September 10 — Classes Convene
Friday, November 5 — Midsemester, End of First Nine Weeks
Wednesday, November 24 — Thanksgiving Vacation begins at 1:30 p.m.
Monday, November 29 — Classes Resume
Friday, December 17 — Christmas Vacation Begins at 1:30 p.m.
Monday, January 3, 1966 — Classes Resume
Tuesday, January 18 — Final Examinations
Wednesday, January 19 — Final Examinations
Thursday, January 20 — Final Examinations
Friday, January 21 — First Semester Ends
Friday, January 21 — Commencement
Monday, January 24 — Registration for Second Semester
Tuesday, January 25 — Registration for Second Semester
Wednesday, January 26 — Classes Convene
Friday, March 25 — Midsemester, End of Third Nine Weeks
Friday, April 8 — Spring Vacation Begins at 11:30 a.m.
Monday, April 18 — Classes Resume
Tuesday, May 31 — Final Examinations
Wednesday, June 1 — Final Examinations
Thursday, June 2 — Final Examinations
Friday, June 3 — End of College Year
Saturday, June 4 — Commencement

SUMMER SESSION 1966

Monday, June 6 — Pre-session begins
Friday, June 17 — Pre-session ends
Monday, June 20 — Summer Session Begins
Friday, July 15 — End of First Four Weeks
Monday, July 18 — Beginning of Second Four Weeks
Wednesday, August 10 — Summer Session Commencement
Friday, August 12 — End of Summer Session
Monday, August 15 — Post Session Begins
Friday, August 26 — Post Session Ends

REGULAR SESSION 1966-67

Monday, September 5 — Labor Day
Tuesday, September 6 — Admission, Registration, and Orientation for Freshman Students
Registration for Men Students Transferring from Other Colleges and Graduate Students; Women Transfer Students Register according to Classification.
Wednesday, September 7 — Registration for Graduate Students, Seniors, and Juniors who have not pre-registered.
Thursday, September 8 — Registration for Sophomore Students who have not pre-registered.
Friday, September 9 — Classes Convene
Friday, November 4 — Midsemester, End of First Nine Weeks.
Wednesday, November 23 — Thanksgiving Vacation Begins at 1:30 p.m.
Monday, November 28 — Classes Resume
Friday, December 16 — Christmas Vacation Begins at 1:30 p.m.
Tuesday, January 3, 1967 — Classes Resume
Tuesday, January 17 — Final Examinations
Wednesday, January 18 — Final Examinations
Thursday, January 19 — Final Examinations
Friday, January 20 — First Semester Ends
Friday, January 20 — Commencement
Monday, January 23 — Registration for Second Semester
Tuesday, January 24 — Registration for Second Semester
Wednesday, January 25 — Classes Convene
Friday, March 24 — Midsemester, End of Third Nine Weeks
Friday, March 24 — Spring Vacation Begins at 11:30 a.m.
Monday, April 3 — Classes Resume
Friday, May 26 — Final Examinations
Monday, May 29 — Final Examinations
Wednesday, May 31 — Final Examinations
Thursday, June 1 — Final Examinations

Friday, June 2 End of College Year
Saturday, June 3 Commencement

SUMMER SESSION 1967

Monday, June 5 Pre-session begins
Friday, June 16 Pre-session ends
Monday, June 19 Summer Session Begins
Friday, July 14 End of First Four Weeks
Monday, July 17 Beginning of Second Four Weeks
Wednesday, August 9 Commencement
Friday, August 11 End of Summer Session
Monday, August 14 Post Session Begins
Friday, August 25 Post Session Ends

CALENDAR

1965

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STATE COORDINATING COMMITTEE FOR HIGHER EDUCATION

(as of January 1964)

Walter Burke	Hales Corners
Meyer M. Cohen	Green Bay
Arthur DeBardeleben	Park Falls
E. J. Fransway	Milwaukee
Jacob F. Friedrick	Milwaukee
Martin Gunnulson	Cambridge
Elizabeth Hawkes	Washburn
John K. Kyle	Madison
Maurice B. Pasch	Madison
John Race	Fond du Lac
John D. Rice	Sparta
John Roche	Rio
Leo S. Rodems	Baraboo
David Rodli	Baldwin
Angus B. Rothwell	Madison
Duane Smith	Wisconsin Rapids
Carl E. Steiger	Oshkosh
John C. Thomson	Stevens Point
Arthur E. Wegner	Madison

DIRECTORS OF INSTRUCTIONAL MAJORS

Audio-Visual Communications	David P. Barnard, Ed.D.
Guidance	Ralph G. Iverson, Ed.D.
Home Economics	Gladys Trullinger, M.S.
Home Economics Education	Gladys Trullinger, M.S.
Industrial Education	Ray A. Wigen, Ph.D.
Vocational Education	E. Robert Rudiger, Ed.D.

GRADUATE COMMITTEE

Ray A. Wigen, Chairman
David P. Barnard
Marguerite C. Barra
Ralph G. Iverson
Anne Marshall
E. Robert Rudiger
G. S. Wall, Secretary

ADMINISTRATION

William J. Micheels, Ph.D.	President
John A. Jarvis, Ph.D.	Dean of Instruction
Gladys Trullinger, M.S.	Acting Dean of the School of Home Economics
Robert Swanson, Ph.D.	Assistant Dean of the School of Applied Science and Technology
Dwight L. Agnew, Ph.D.	Director of Liberal Studies
John A. Jarvis, Ph.D.	Director of Summer Session
Ralph G. Iverson, Ed.D.	Dean of Student Affairs
Ray A. Wigen, Ph.D.	Dean of Graduate Studies
Stella M. Pedersen, M.A.	Dean of Women
Merle M. Price, M.A.	Dean of Men
John D. Furlong, Ph.D.	Assistant to the President
Erich R. Oetting, Ph.D.	Director of Professional Teacher Education
Frank J. Belisle, M.A.	Registrar and Placement Chairman
Samuel E. Wood, M.A.	Assistant Registrar
E. J. Schoepp, A.B.	Business Manager
Donald Osegard, B.A.	Student Admissions Examiner
Robert D. Sather, M.S.	Financial Aids Counselor
Mrs. Ora Chase, R.N.	College Nurse
Physicians of the Red Cedar Clinic	College Physicians
Dennis R. Raarup, M.A.	Director of the Student Center
Phyllis D. Bentley, M.S.	Librarian
Mrs. Beulah Howison, A.B.	Assistant Librarian
John J. Jax, M.S.	Assistant Librarian
Mary R. Donley, M.A.	Assistant Librarian
Daniel Jeatran, B.S.	Food Service Supervisor
Helmuth Albrecht, B.S.	Director of Housing

GRADUATE FACULTY

WILLIAM J. MICHEELS (1961) *President*
Stout State University, B.S.; University of Minnesota, M.A., Ph.D.

DWIGHT L. AGNEW (1947) *Director of Liberal Studies. Chairman of the Department of Social Science. Professor, History*
Park College, A.B.; University of Iowa, A.M., Ph.D.

HERBERT A. ANDERSON (1948) *Chairman of Department of Industrial Graphics. Professor*
Stout State University, B.S.; University of Minnesota, M.A.; University of Missouri, Ed.D.

DAVID P. BARNARD (1947) *Chairman of Audio-Visual Center. Professor. Audio-Visual Education, Photography*
Stout State University, B.S., M.S.; Indiana University, Ed.D.

MARGUERITE C. BARRA (1961) *Chairman of Department of Clothing and Textiles. Professor.*
Southern Illinois University, B.S.; George Peabody College for Teachers, M.A.; Texas Women's University, Ph.D.; Kansas City Art Institute, Graduate Study.

PHYLLIS D. BENTLEY (1954) *Librarian. Associate Professor*
University of Wisconsin, B.A.; Columbia University, M.S.

LOIS BLAUG (1962) *Instructor. Sociology*
City College of New York, B.A.; University of Minnesota, M.A.

DENNIS P. BOLSTAD (1961) *Associate Professor. Education and Psychology*
St. Olaf College, B.A.; Macalester College, M.Ed.; University of Colorado, Graduate Study.

LOIS E. A. BYRNS (1960) *Professor. English*
University of Wisconsin, B.A., M.A., Ph.D.; Columbia University, George Washington University, Graduate Study.

CLARA C. CARRISON (1948) *Associate Professor. Food and Nutrition*
Western Illinois University, B.E.; University of Iowa, M.S.; Ohio State University, Pennsylvania State University, University of Tennessee, University of Minnesota, Iowa State University, Graduate Study.

DWIGHT D. CHINNOCK (1940) *Supervisor of Student Teaching. Professor*
Wisconsin State University, River Falls, Diploma; Stout State University B.S.; University of Minnesota, M.A., Graduate Study.

DOROTHY F. CLURE (1956) *Assistant Professor. Home Management and Family Economics*
Stephens College, A.A.; Iowa State University, B.S.; University of Chicago, M.A.

BETTY SNYDER COTTER (1959) *Assistant Professor. Food and Nutrition*
Stout State University, B.S.; University of Michigan, Stout State University, Iowa State University, Kansas State College, M.S.

E. WAYNE COURTNEY (1962) *Associate Professor. Education and Psychology*
Purdue University, B.S., M.S., Ph.D.

ANN L. CURTIS (1964) *Assistant Professor. Food and Nutrition*
St. Mary-of-the-Woods College, B.S.; Purdue University, M.S.

MARIAN DEININGER (1959) *Associate Professor. Sociology*
University of Minnesota, B.A., M.A., Ph.D.

KENNETH J. ERICKSON (1961) *Assistant Professor. Industrial Graphics*
Wisconsin State University, Platteville, B.S.; University of Minnesota, M.A.

WESLEY L. FACE (1957) *Chairman of Department of Metals. Associate Professor*
Northern State College, South Dakota, B.S.; Stout State University, M.S.; University of Illinois, Ed.D.

EUGENE R.F.FLUG (1962) *Assistant Professor. Education*
University of Minnesota, B.B.A., B.S., M.A.

ORAZIO FUMAGALLI (1964) *Chairman of Art Department. Associate Professor*
University of Iowa, B.A., M.F.A., Ph.D.

JOHN FURLONG (1963) *Assistant to the President. Associate Professor*
University of Minnesota, B.S., M.A., Ph.D.

HAROLD HALFIN (1956) *Associate Professor. Metals*
Fairmont State College, A.B.; Stout State University, M.S.

ROBERT R. HARDMAN (1964) *Assistant Professor. Audio-Visual Education*
Maryland State Teachers College, B.S.; Indiana University, M.S.

MARGARET E. HARPER (1943) *Associate Professor. Home Economics Education*
Kansas Wesleyan University, B. S.; Kansas State University, M.S.; Colorado State University, Iowa State University, Graduate Study.

PAUL R. HOFFMAN (1964) *Director of Counseling Center. Assistant Professor*
University of Maine, B.A.; University of Arizona, Graduate Study

RALPH G. IVERSON (1951) *Dean of Student Affairs. Professor. Education and Psychology*
Augustana College, B.A.; University of Minnesota, M.A.; University of California, Ed.D.

MARGARET A. JAMES (1961) *Assistant Professor. Food and Nutrition*
University of Wisconsin, B.S., M.S.; University of Minnesota, Graduate Study.

JOHN A. JARVIS (1946) *Dean of Instruction. Dean of the School of Applied Science and Technology. Professor*
University of Wisconsin, B.S. in Mechanical Engineering; Stout State University, B.S.; Wayne State University, M.Ed.; University of Minnesota, Ph.D.

MICHAEL J. JERRY (1962) *Instructor, Industrial Graphics*
Rochester Institute of Technology, B.F.A., M.F.A.

MARY KILLIAN (1947) *Director of Institution Management. Professor*
Omaha University, B.S.; Creighton University, M.A.; Columbia University, St. Louis University, Graduate Study.

DICK G. KLATT (1952) *Assistant Professor, Metals*
Stout State University, B.S., M.S.

LOUIS L. KLITZKE (1960) *Associate Professor. Education and Psychology*
Southwestern College, A.B.; Colorado State College, M.A., Ed.D.

LORNA S. LENGFELD (1956) *Associate Professor. Speech*
Iowa State Teachers College, Northwestern University, University of Minnesota, University of Wisconsin, B.A.; University of Wisconsin, M.A. Ph.D

LIU, DAVID WEI-PING (1964) *Assistant Professor. Economics*
National Chengchi University, Nanking, China, B.S.; University of Kentucky, M.S.; University of Minnesota, Ph.D.

MAHANNAH, VIRGINIA M. (1964) *Instructor. Clothing and Textiles*
University of Minnesota, B.S.; M.S.

ANNE MARSHALL (1939) *Chairman Department of Science Professor Biology*
Denison University, B.S.; Ohio State University, M.A., Ph.D.

ELLA JANE MEILLER (1950) *Chairman of Department of Food and Nutrition. Professor*
Kansas State College, B.S.; University of Wisconsin, M.S.; Kansas State College, University of Minnesota, Graduate Study.

ROBERT J. MELROSE (1958) *Assistant Professor. History*
Stout State University, Wisconsin State University, Eau Claire, B.S.; Wisconsin State University, Superior, University of Minnesota, M.A.

EDWARD O. MORICAL (1957) *Assistant Professor. Electricity and Mechanics*
Bemidji State College, B.S.; Wayne State University, M. Ed., Graduate Study.

ELMER A. NAMY (1964) *Assistant Professor. Psychology*
Adelbert College, B.A.; Western Reserve University, M.A., Graduate Study.

ORVILLE NELSON (1963) *Assistant Professor. Education*
Stout State University, B.S.; University of Minnesota, M.A.

ERICH RICHARD OETTING (1945) *Director of Professional Teacher Education. Chairman of Department of Education and Psychology. Professor*
Wayne State Teachers College, B.A.; University of Wisconsin, University of Nebraska, M.A., Ph.D.

ARNOLD E. OLSON (1964) *Instructor. Sociology*
Augustana College, Sioux Falls, South Dakota, B.A.; Stout State University, M.S.

STELLA M. PEDERSON (1961) *Dean of Women. Professor. Education*
Wisconsin State University, River Falls, B.E.; University of Minnesota, M.A.; University of Minnesota, Northwestern University, Columbia University, Graduate Study.

BEATRICE A. PETRICH (1963) *Chairman of Department of Home Economics Education. Associate Professor*
University of Minnesota, B.S.; Colorado State University, M.E.

ROBERT L. PHELPS (1961) *Assistant Professor. English, Journalism*
Morningside College, B.A.; Syracuse University, M.A.

ARNOLD C. PIERSALL (1960) *Chairman of Department of Wood Technics. Associate Professor*
Iowa State Teachers College, B.A.; Colorado State College, M.A.; University of Missouri, University of Wyoming, Colorado State College, Ed.D.

MERLE M. PRICE (1929) *Dean of Men. Professor. Political Science*
St. Cloud State College, Diploma; University of Minnesota, B.S., M.A., Graduate Study.

NEAL W. PRICHARD (1962) *Assistant Professor. Wood Technics*
University of Minnesota, B.S.; M.A.; Pennsylvania State University, Ed.D.

EVELYN G. RIMEL (1961) *Associate Professor. Education and Psychology*
Montana State University, B.A., M.A.; Syracuse University, Ph.D.; Merrill-Palmer Institute, Graduate Study.

CHARLOTTE L. ROSE (1961) *Assistant Professor. Home Management and Family Economics*
Olivet Nazarene College, B.S.; University of Illinois, M.S. Graduate Study.

JANE ROSENTHAL (1962) *Assistant Professor. Home Economics Education*
Stout State University, B.S., M.S.

E. ROBERT RUDIGER (1952) *Professor Education*
Stout State University, B.S., M.S.; University of Missouri, Ed.D.

PHILIP W. RUEHL (1948) *Chairman of Department of Electricity and Mechanics. Professor. Electricity*
Stout State University, B.S., M.S.; University of Minnesota, Ph.D.

JOHN SABOL (1964) *Assistant Professor. Economics*
Michigan State University, B.A.; M.A.

GUY SALYER (1948) *Professor. Education and Psychology*
University of Missouri, A.B., A.M.; University of Nebraska, Ph.D.; University of Minnesota, Graduate Study.

SCHULZ, AUGUST J. (1964) *Assistant Professor. Driver Education*
Stout State University, B.S.; New York University, M.A., Graduate Study.

WESLEY S. SOMMERS (1956) *Chairman of Department of Industrial Technology. Professor.*
University of Michigan, B.S.E., A.M.; Syracuse University, University of Minnesota, Ph.D.

BESSIE W. SPRATT (1963) *Assistant Professor. Home Economics Education*
Iowa State University, B.S.; Michigan State University, State University of Iowa, Iowa State College, M.S.

ROBERT SWANSON (1950) *Assistant Dean of Applied Science and Technology. Professor*
Stout State University, B.S. M.S.; University of Minnesota, Ph.D.

GLADYS TRULLINGER (1936) *Acting Dean of the School of Home Economics. Chairman of Department of Home Management and Family Economics. Professor*
University of Nebraska, B.S., M.S.; Colorado State College, Michigan State University, Iowa State University, University of Minnesota, Graduate Study.

HAZEL VAN NESS (1929) *Professor. Clothing and Textiles*
Syracuse University, B.S.; Columbia University, M.A.; Columbia University, Michigan State University, Syracuse University, University of Tennesee, Graduate Study.

G. S. WALL (1952) *Professor. Education*
Winona State College, Diploma; University of Minnesota, B.S., M.A., Ph.D.

LLOYD WHYDOTSKI (1949) *Chairman of Department of Printing. Associate Professor*
Stout State University, B.S.; Colorado State College, M.A.

THEODORE E. WIEHE (1954) *Associate Professor. Metals*
Oklahoma State University, B.S., M.S.; University of Missouri, Ed.D

RAY A. WIGEN (1933) *Dean of Graduate Studies. Professor. Education*
Wisconsin State University, River Falls, Diploma; University of Minnesota, B.S., M.A., Ph.D.

MARY K. WILLIAMS (1954) *Assistant Professor. Art*
University of Wisconsin, B.S., M.A.; Graphis Lehr and Versuchanstalt, Hertha Buchner Keramics, Vienna, New York University, Chicago Institute of Design, University of Wisconsin, Chicago Art Institute, Graduate Study.

ROBERT F. WILSON (1960) *Instructor. Art*
Ohio State University, B.F.A., M.A.

NORMAN C. ZIEMANN (1949) *Chairman of Department of Speech. Professor*
Wisconsin State University, La Crosse, B.S.; Northwestern University, M.A., Ph.D.

GENERAL INFORMATION

Stout State University has been preparing teachers for vocational, industrial and home economics education since 1893. At first provision was made for only a two-year course, but in 1917 the four-year course and in 1935 the fifth year on the graduate level, leading to the degree of Master of Science, were authorized. During these years of development and expansion, Stout held consistently to the function of preparing teachers and administrators in these fields of work.

Provisions are made for students to complete requirements for the degree of Bachelor of Science or to take undergraduate work beyond the degree requirements for refresher purposes. Beginning with the second semester of the college year 1945-46, graduate work has been offered during both the regular session and the summer session. Since 1955, majors in the graduate program have been established in Audio-Visual Communications and Guidance. These curricula lead to the degree of Master of Science with majors in Audio-Visual Communications, Guidance, Home Economics, Home Economics Education, Industrial Education, and Vocational Education. For persons interested in study in these fields, Stout State University has unusual facilities and an unexcelled faculty.

The university year is thirty-six weeks in length. There are two semesters of eighteen weeks each. The summer session, which opens each year in June, two weeks after the close of the regular session, is eight weeks in length.

HISTORY

The history of Stout State University dates back to the year 1889 when Senator James H. Stout offered the people of Menomonie a program of manual training and domestic science in all twelve grades of the Menomonie public schools. From the beginning the graduates of Menomonie High School were offered teaching positions. Thus began a pioneer teaching program in the United States.

In 1893 new buildings were constructed and assistance was withdrawn from the public schools and The Stout Manual Training and Domestic Science School, independent of the public schools was definitely established. A president was appointed in 1903 by Senator Stout whose patronage continued through 25 critical years until his death in 1910.

Through Senator Stout's efforts, Dr. Lorenzo Dow Harvey, a former state superintendent of instruction in Wisconsin, assumed the presidency of The Stout Manual Training and Domestic Science School in 1903. Dr. Harvey continued to serve in that capacity when the name of the school was changed to The Stout Institute five years later. The name remained following its presentation, acceptance, and placement under the control of a board of trustees by the state of Wisconsin in 1911.

In 1917, six years after its designation as a state institution, The Stout Institute, by legislative action, was made a college with degree-granting

power. In 1923, Burton Edsel Nelson was named to succeed President Harvey, who died in June, 1922. Nelson served in that capacity until his retirement in 1945; he died in July, 1961. In October of 1945, Dr. Verne C. Fryklund assumed his executive duties as the third president and retired in September, 1961. At that time Dr. William J. Micheels became the fourth president of the college.

In 1935, through legislative action, The Stout Institute was authorized to undertake graduate work and to grant the Master of Science Degree with designated majors in (1) Industrial Education (2) Vocational Education and (3) Home Economics Education.

Under the provisions of a law effective July 1, 1955, the Legislature changed the name of the The Stout Institute to Stout State College and placed it under the jurisdiction of the Board of Regents of Wisconsin State Colleges. That law also gave Stout State College authority to grant the degree of Bachelor of Science in Industrial Technology as well as to continue granting the undergraduate and graduate degrees authorized earlier. By action of the Board of Regents of Wisconsin State Colleges, the name of Stout State College was changed to Stout State University, effective July 1, 1964.

LOCATION

Stout State University is located on the Red Cedar river in the City of Menomonie, Wisconsin. Menomonie, a pleasant city of 9000 population is located at the junction of Highway 12 and 94, the main Minneapolis—Chicago artery; with State 29 which joins the St. Croix River with Lake Michigan; and State 25 linking the Indianhead Country with the Mississippi.

Scheduled busses serve Menomonie daily. Air travel is available at Eau Claire and St. Paul.

Excellent recreational opportunities are available in the area.

BUILDINGS AND GROUNDS

Seven large, thoroughly equipped buildings (Harvey Hall, Bowman Hall, the Physical Education Building, Ray Hall, Fryklund Hall, the Memorial Student Center and the Pierce Library) comprise the central plant. In addition there are five residence halls and two home management houses. The grounds include spacious lawns for the women's dormitories and housing units, a practice field, tennis courts and the Burton E. Nelson Athletic Field.

THE LIBRARY

The Robert L. Pierce Library houses 70,000 volumes and seats 250 readers. It has an audio-visual room, seminar rooms, and space for displays. The library provides a wide range of reference material particularly in all of the specialized major fields. It is also rich in the fields of art, the social and natural sciences, mathematics, engineering, manufacturing, and industry. A large number of books and magazines for purely cultural reading is provided.

LABORATORIES AND EQUIPMENT

The shops for the teaching of industrial subjects are all well-equipped and modern. Ray Hall is devoted exclusively to shops containing complete equipment for elementary and advanced classes in carpentry, cabinet making, general woodwork, painting and finishing, architectural and machine drafting. All types of visual education equipment are provided. Bowman Hall contains shops completely equipped for work in printing and visual aids. A physics laboratory is housed here. This building also contains lecture rooms for courses in arts and science. The tower of the hall contains the college carillon. Fryklund Hall is new and contains all metalworking shops, electrical laboratories as well as classrooms and the music department.

The home economics laboratories in Harvey Hall have been extensively remodeled and re-equipped. This modernization program includes the laboratories used for art and home furnishings, child development, food and nutrition, home management, clothing and textiles, home economics education and the sciences. Adequate lighting and modern furnishings and equipment make for effective instruction in pleasant and comfortable surroundings. Stout State University home economics laboratories, because of their unique nature and functional arrangement, have attracted hundreds of visitors from the United States and many other countries.

AUDITORIUM

One of the wings of Harvey Hall houses a modern auditorium with a seating capacity of 650. Educational and entertaining programs are frequently presented by nationally-known speakers or performers. The large stage makes possible the appearance of orchestral and choral groups and provides excellent facilities for dramatic offerings.

STUDENT HOUSING FACILITIES

Three residence halls are provided for women. Bertha Tainter Hall and Eichelberger Hall are located on spacious grounds overlooking Lake Menomin. Mary A. McCalmont Hall is situated in the newest sector of the campus. The reception rooms and student living quarters are all comfortably and attractively furnished. The dining room in Tainter Hall serves carefully-planned meals to all dormitory residents in that area. The charge for meals is maintained at as low a rate as possible under the prevailing price structure. Laundry facilities are available at a minimum charge to students living in these dormitories.

Two new dormitories for men, Fleming Hall and Hovlid Hall, are located near Tainter Hall on Broadway. Students' living quarters and reception rooms of these modern structures are all comfortably and attractively furnished.

Rooms are available on the Sunday immediately preceding registration day in the fall. All rooms are assigned for the entire academic year. Each room is furnished with single beds and inner-spring mattresses, pillows, dresser, study table, chairs, study lamp, and bookcase. Sheets, pillow cases,

drapes, and bedspreads are supplied. Students are requested not to bring additional furniture, particularly floor lamps. Radios are permitted in the rooms provided the students comply with the regulations for radios. Radio and television are available for general use in the main lounge of each building.

Accommodations are available in the city for men and women students not living in the dormitories.

Stout State University has 66 student apartments at Fair Oaks. These are barracks-type units with either two or three apartments in each building. Each apartment has a living room with a kitchenette alcove, two bedrooms, bath, and storage closet.

The basic equipment supplied is an oil heating stove, bottled gas cookstove, and hot water heater. The water is supplied, but the tenant pays for electricity and bottled gas used. The basic rent for each apartment is $30 per month.

Direct inquiries concerning housing requirements to the Director of Housing, Stout State University.

STUDENT CENTER

The student center provides recreational, lounge, reading, meeting, and eating facilities.

The first floor area has conference rooms, snack bar, book store, and a recreational area. The recreational area includes six bowling lanes, billiards, and table tennis.

The food service, ballroom, and lounge areas are located on the second floor of the building. Adequate checkroom facilities are provided on both floors. The center also provides offices for the Center Board, Stoutonia, Tower, and Student Government.

FINANCIAL INFORMATION

Since the catalog must be prepared far in advance, all fees, room, and food rates, and other charges are subject to change without notice in this catalog. Fees are payable registration day at beginning of each semester and summer session.

Graduate Tuition And Fees
(Regular Session)

Tuition	
Residents of Wisconsin	no charge
Non-Residents of Wisconsin, per semester	$170.00
Incidental Fee, per semester	
Full-time students	$95.00
Part-time students (resident)	12.50*
(non-resident)	35.00*

*All students taking courses aggregating 7 or less semester hours of credit shall be counted as part-time students. Those students taking courses aggregating less than 7 hours of credit shall pay an incidental fee of $12.50 per credit (resident student) or $35.00 per credit (non-resident student).

Student Union Fee, per semester	
Full-time students	$14.00
Part-time students, 7 credit hours or less	5.00
Student Activity Fee, per semester	
Full-time students	$17.00
Part-time students, 7 credit hours or less	Varies

Graduate students must purchase their own textbooks.

Late Registration Fee	10.00
Diploma Fee	7.50
Thesis Binding Fee, each	2.00
($.50 additional if over 140 pages)	
Special Examination Fee	2.00

Any expense incurred by graduate students during the conduct of research problems, such as printing of questionnaires, maps, charts, postage, typing of reports, etc., is the responsibility of the student and must be supplied and paid for by the student. Bound copies of the theses will be sent to the writer via postage collect.

Students Taking Both Undergraduate and Graduate Courses

(Split Program — Regular Session)

Tuition	
Residents of Wisconsin	no charge
Non-Residents of Wisconsin, per semester	$170.00
Incidental Fee, per semester	95.00
Student Union Fee, per semester	14.00
Student Activity Fee, per semester	17.00
Textbook Rental Fee, per semester	6.00
Late Registration Fee	10.00
Diploma Fee	7.50
Special Examination Fee	2.00

Graduate Tuition And Fees
(Summer Session)

Incidental Fees
- Full-time students (five credits or more)
  - Resident $62.50
  - Non-Resident 130.00
- Part-Time students (one to four credits)
  - Resident — per credit hour 12.50
  - Non-Resident — per credit hour 35.00

Graduate students must purchase their own textbooks.

Student Activity Fee
- Full-time students (five credits or more) 12.50
- Part-time students (one to four credits) 7.00

Diploma Fee 7.50

Thesis Binding Fee, each 2.00
($.50 additional if over 140 pages)

Special Examination Fee 2.00

Students Taking Both Undergraduate and Graduate Courses
(Split Program—Summer Session)

Incidental Fees
- Resident 62.50
- Non-Resident 130.00

Textbook Rental Fee 4.00

Student Activity Fee 12.50

Diploma Fee 7.50

Special Examination Fee 2.00

FINANCIAL AIDS

Stout State University has on its staff, a professional Financial Aids Counselor, who devotes full time helping students who need financial help. For additional information write to: Financial Aids Counselor
Stout State University
Menomonie, Wisconsin

Student Financial Aids

State of Wisconsin Loans

The State of Wisconsin makes loans to assist resident graduate students who have financial need and scholastic promise. The amount of such loans is not to exceed $750 per academic year. An additional $250 may be borrowed for summer session. Application for such loans may be requested at the convenience of the applicant. It is to be noted, however, the processing of the application usually takes about two months. Students should anticipate this delay and make request accordingly. For further information and applications, make your request through the Financial Aids Counselor, Stout State University.

National Defense Loans

The National Defense Student Loan Program, nation-wide in scope, provides loans to full-time students who are capable of maintaining a good scholastic standing and proof of need is evident. Normally, $600 is the maximum loan approved for a given academic year.

Repayment of the loan begins one year after a student completes his course work and payment for repaying the loan may extend over a ten-year period. No interest accrues on the loan while the loanee is a full-time student. Interest at three per cent per year begins to accrue at the beginning of the repayment period. Future teachers may receive up to fifty per cent forgiveness on all National Defense Loans.

Students interested in this loan program should make application before mid-April. Student applications may be obtained from the Financial Aids Counselor.

Scholarships

A limited number of scholarships are available to qualified students.

Applications may be directed to the Financial Aids Counselor.

Assistantships

A limited number of teaching assistantships are awarded each year by the Dean of Instruction. Interested applicants should write to the Financial Aids Counselor for applications and additional information.

Part-Time Employment

Many students receive part-time employment on the campus in such places as the cafeteria, library, building maintenance department, student center, print shop, offices needing clerical assistants, and dormitories. Other students are assisted in finding off-campus jobs. Although the professed demand for employment usually exceeds the supply of jobs, those who aggressively and earnestly seek work are usually able to find it. The Financial Aids Counselor directs this service for the students.

SUMMER SESSION

Complete course offerings in each of the major fields in the graduate program are included in the summer session program. The regular summer sessions open two weeks after the close of the second semester in June. Special workshops are held before and after the regular summer sessions.

The regular summer session is eight weeks in length. One-two-and four-week sessions are offered prior to and during the regular eight week session. This enables a graduate student to fulfill requirements for a Master of Science degree in four summer sessions. The summer session bulletin issued in April gives full information on courses and schedule.

Summer session classes are designed to meet the needs of various groups of people. Former students and graduates have an excellent opportunity for taking advanced work. Both graduate and undergraduate work will be offered. Supervisors and teachers of audio-visual communications, guidance, industrial education or home economics can strengthen their work in techniques or in

the field of education. All persons interested in specific studies related to work in industrial or homemaking courses will find much of interest in the summer session schedule. The Wisconsin State Board of Vocational and Adult Education through the use of federal teacher training funds is cooperating with Stout State University in the preparation of teachers for schools of vocational, technical, and adult education. The summer session schedule carries an excellent range of courses required for vocational classification.

Special lectures and conferences are included in the summer session program. It has been the policy of the university to secure special speakers particularly well qualified to handle the larger social problems of the present time. Special emphasis is given to the relationships and responsibilities which teachers have in the solutions of these problems.

Credit granted for courses taken during the summer session will apply on course requirements where such courses are in the curriculum leading to the degree. The time assigned to summer session courses is increased in sufficient amounts to permit students to carry the course for the same credit as in the regular session.

The April issue of the Stout State University Bulletin is the annual summer session bulletin. This contains general information on the summer session, description of courses, and the summer session class schedule including both undergraduate and graduate work. It will sent on request.

OBJECTIVES OF THE UNIVERSITY

The objective of any university is to supply its students with knowledge, experience, and service in keeping with its general purpose. The basic objective of Stout State University can be stated in this way: to introduce students to the basic areas and systems of knowledge, to instill in them a desire to examine their lives' experiences critically and to provide the tools with which to make that examination, to induce them to use the knowledge they acquire and the critical faculties they develop to pursue to depth a vocational specialty.

Beyond this general objective, Stout State University has several specific educational aims. It hopes to instill in each student the ability and desire to:

1. Think constructively and creatively.
2. Participate in the discussion and solution of local, national, and international problems.
3. Achieve a sense of social responsibility leading to a concern for the improvement of society.
4. Understand and appreciate the ideas of others and express his own effectively.
5. Understand the important discoveries of mankind and their impact on humanity.
6. Comprehend literature, art, music, crafts, and drama as expressions of others' experiences.

7. Attain social and emotional adjustment.
8. Attain a constructive attitude toward change; accept it when it seems necessary, or reject it when it seems unwarranted.
9. Enter a suitable occupation and advance in it to the limit of his abilities.

GRADUATE PROGRAM

The graduate program of Stout State University is organized to supplement the major functions of the undergraduate program; namely education, service, and research at the master's degree level. The curriculum is planned so that prospective personnel may earn the Master of Science degree in Audio-Visual Communications, Guidance, Home Economics, Home Economics Education, Industrial Education, and Vocational Education.

Functions

The Education Function

The broad education function is to prepare students in specialized major fields based upon certification laws, state and national standards, trade and industrial experience, and professional objectives.

The specific education function is to prepare master teachers in specialized major fields; professional personnel in audio-visual communications, guidance, home economics, and industry; supervisors and administrators in specialized major fields; and to develop research competencies of students with emphasis on consumer and action types of research.

It is anticipated that the graduate program will develop the students' personal and professional competencies so that he may successfully enter upon and/or progress in his chosen major field, and that the educational activities and the college environment will enrich his cultural and general development.

The Service Function

The service function of the graduate program provides staff consultants for area schools, state departments of education, and national organizations; provides investigations, surveys, and research reports; provides professional leadership for the promotion of the major fields offered in the graduate program. Types of educational contributions include sponsored workshop programs, publications in professional fields, consultant service, and participation as committee members and officers in local, state, and national organizations.

The Research Function

Research and scholarship are educational activities of the graduate staff that are encouraged and promoted to provide leadership in the major fields offered in the graduate program. Many types of research projects related to teacher education problems, technological developments, curriculum development procedures, field surveys, and experimental projects are investigated by staff members and reported in professional literature and to professional organizations.

ADMISSION REQUIREMENTS

Persons desiring admission to the Graduate Studies program should complete the Application for Admission form included in this bulletin and should forward the completed form to the Dean of Graduate Studies.

In general, a Bachelor's degree from an accredited college with at least a 2.5 grade point average (C plus) based on the system of A-4; B-3; C-2; D-1; and F-0 is required for admission. The specific requirements for admission to the graduate program are described under each of the major fields offered, as reported in this bulletin.

TRANSCRIPT OF CREDITS

All students graduated from colleges other than Stout State University should have an official transcript of their undergraduate credits sent to the Registrar of Stout State University. A transcript of any graduate credit to be transferred to Stout State University for advanced standing should be submitted at this time also. (See next section, "Transfer of Graduate Credits"). This should be done by all applicants at least one month prior to enrollment date. Stout State University graduates should deal directly with the Dean of Graduate Studies concerning the transcript.

TRANSFER OF GRADUATE CREDITS

Graduate credit from other institutions to count toward degree requirements is limited to eight semester hours of credit. Such credit must be recorded as graduate credit on an original transcript and must apply to the student's sequence of courses at Stout. Graduate students pursuing the Master's degree at Stout State University should consult the Dean of Graduate Studies before enrolling for credits that are to be transferred from another college to Stout.

SPECIAL STUDENTS

Students who do not plan on working for an M.S. degree at Stout State University and who enroll for graduate credit to transfer to other colleges will be enrolled for graduate credit upon securing a statement from the Registrar of their undergraduate college and submitting it to the Registrar of Stout State University. The statement must indicate that they possess a Bachelor's degree.

SENIOR (SPLIT PROGRAM)

Qualified seniors who do not require full time to complete their undergraduate work within the enrollment period of one semester or one summer session may enroll for graduate courses with the permission of the Dean of the undergraduate school and the Dean of Graduate Studies. This permission must be obtained prior to registration; credit earned prior to enrollment in the graduate program will not be accepted as graduate credit. The limit of the total hours carried should not exceed that set as a normal load. Only partial credit for residence will be granted for the period in which such work is taken.

GENERAL REQUIREMENTS FOR GRADUATION

The graduation requirements for the Master of Science degree regardless of the major are as follows:

1. Completion of a minimum of 30 semester hours of credit approved for the major field.
2. At least 15 semester credits required for the Master's degree must be earned in 500 series graduate courses. The balance of courses may be selected from the 300 and 400 series graduate courses listed in this bulletin.
3. Graduate courses required of all students: Education 501, Research Procedures; Education 510, Applied Research; Education 561, Educational Statistics; and Education 570, Thesis or the Plan B "Problems" course designated for the major area.
4. Requirements for the master's degree must be completed within a six year period. Requests for extension will be given consideration by the Graduate Committee.
5. Residence requirements are one academic year, or its equivalent in sessions. The acceptance of eight semester hours of credit from another institution may reduce the residence requirements.
6. Transfer of graduate credit from other institutions is limited to eight semester hours. An official transcript of graduate credit earned elsewhere prior to the first enrollment must be submitted, for approval as advanced standing, to the major adviser. Students must obtain approval from the major adviser before taking any graduate work elsewhere which they may wish to transfer to Stout State University.
7. The standard of work on the graduate level requires that the candidate for the master's degree earn at least a B average for 30 semester hours of credit. (Note: in the case of a thesis, the average is based on 24 semester credits.)
8. "Incompletes" are given in cases in which the absence incurred has been due to situations over which neither the student nor the instructor has any control. However, the student must have a passing grade in the course at the time of withdrawal. In graduate work, incompletes are also given in cases in which completion of research requires more time than is available during the term. In such cases, the incomplete must be made up within three years following the end of the course.
9. The maximum load that may be taken by a graduate student is sixteen semester hours per semester. Full residence credit will be granted to graduate students carrying a minimum of 12 semester hours credit per semester during the regular academic year. During the eight week summer session, the maximum is eight semester credits, while the minimum for determining residence is four semester credits.
10. Requirements for admission as Candidate for Master of Science degree.
    A. Completion with an average of B or better of fifteen or more semester hours of credit in approved graduate course work including: Educa-

tion 501, Research Procedures; Education 510, Applied Research; and Education 561, Educational Statistics.

B. Completion of the Cooperative English Test with a score at or above the 10th percentile based on the Stout Graduate Student Norms. This test is to be taken during the first enrollment period or before completion of 8 semester hours of credit. Failure to satisfy this requirement the first time may be removed by either:
   1. Successfully passing an alternate form of the Cooperative English Test, or
   2. Certification by the English Department, after a period of instruction and the writing of one or more themes, that the student meets the English competence requirements.

THESIS AND INVESTIGATION REQUIREMENTS

General. The graduate program at Stout State University provides opportunity for students to acquire preparation in the understanding, interpretation, and application of research procedures. It is for this purpose that all students are required to take the basic courses: Education 501 Research Procedures, Education 510 Applied Research, and Education 561 Educational Statistics.

There are two plans available for students to satisfy the research requirement. A brief explanation of the two plans follows. (Detailed instructions for Plan A and Plan B should be secured from the Office of the Dean of Graduate Studies.)

No student may use both Plan A and Plan B credit towards graduation.

The student, in conference with his major adviser, should select Plan A or B whichever best meets his professional needs and interests. The following considerations should be constantly recognized:

1. The study should be of significance in its field.
2. The study should be clearly limited.
3. The study should raise distinct questions.
4. The data for research must be available to the student conducting the study.
5. The problem should be within the major field.
6. The ability of the student, time, and cost should be favorable.

PLAN A—*Thesis.* This is to be a study in the major field involving original research on a significant problem. It is to be carried on using an approved research procedure and culminating in a thesis as the final report which is to be written according to standards established by the Graduate Committee. (These standards are discussed in the required courses and copies are also available in the Graduate Studies Office.) The student is required to register for Education 570 Thesis for a total of 6 semester hours.

PLAN B—*Investigation.* This is to be a research study (of a lesser degree than a thesis) in fulfillment of part of the graduation requirements under this plan. Students should first confer with their major adviser and then with the Plan B course instructor, making tentative plans for the proposed

study, the method, the subject, the problem, if any, and the delimitations. This requirement will be fulfilled by enrollment in the Plan B course approved by the major adviser. (See details for each major area presented in this bulletin.) Details are given in the required courses and are also available in the Graduate Studies Office.

Audio-Visual Communications

This practical curriculum is designed to increase the personal and professional development of the student in the field of communications. Through conferences with the major adviser, the student's program is planned so that he is qualified to prepare and use audio-visual materials and to develop, supervise, and administer audio-visual services for all levels of education as well as in industry and government.

ADMISSION REQUIREMENTS

In general, a bachelor's degree from an accredited college with sufficient credits to qualify for a teaching certificate; with at least a 2.5 grade point average (C plus) based on the system of A-4; B-3; C-2; D-1; and F-0.

He must also have had at least two years of successful teaching experience or acquire it before completing the graduation requirements. This requirement may be waived for those who do not seek employment as an audio-visual coordinator or director in the elementary and secondary schools.

MASTER'S DEGREE REQUIREMENTS

To qualify for a Master of Science degree with a major in Audio-Visual Communications requires that the student earn not less than 30 semester hours of credit with a B average, which will be distributed as follows:

1. A minimum of fifteen semester credits must be earned in graduate (500 series) courses.
2. Eight to twelve semester credits—required of all students.

	Sem. Hrs.
Ed. 501 Research Procedures	2
Ed. 510 Applied Research	2
Ed. 561 Educational Statistics	2
and either	
Ed. 570 Thesis	6
or	
Ed. 522 Problems in Audio-Visual Communications (Plan B)	2

3. At least ten but not more than sixteen semester credits from the following:

	Sem. Hrs.
*Ed. 360 Audio-Visual Education	2
I.E. 405 Advanced Photography	2
Sc. 427 Physics-Electronics	2
*Ed. 439 Motion Picture Production	2

Sp. 470 Radio and Television Workshop ---------- 2
I.E. 540 Advanced Technical Problems — Audio-Visual ---------- 2-6
I.E. 543 Advanced Technical Problems — Graphic Arts ---------- 2-6
I.E. 544 Advanced Technical Problems — Electricity (Electronics I) - 2-4
*Ed. 547 Communications Media Design ---------- 2
*Ed. 560 Audio-Visual Administration ---------- 2
Ed. 551 Programmed Instruction ---------- 2

4. Additional courses to complete the required 30 semester credits selected from among the following:

Sem. Hrs.

Sp. 406 Communication Skills for Educational Leadership ---------- 2
Ed. 470 Conference Leading I ---------- 2
Ed. 479 Public Relations for Schools ---------- 2
Ed. 500 Philosophy of Modern Education ---------- 2
*Ed. 502 Principles of Supervision ---------- 2
Ed. 506 Problems of Supervision ---------- 2
Ed. 513 Personality and Mental Health ---------- 2
*Ed. 526 Administration ---------- 2
I.E. 533 Survey Procedures ---------- 2
I.E. 537 Curriculum Procedures III ---------- 2
*Ed. 538 Elementary School Curriculum ---------- 2
*Ed. 539 High School Curriculum ---------- 2
Ed. 555 Psychology of Learning ---------- 2

*Courses required for Audio-Visual Director's Certificate in certain states.

Guidance and Counselor Education

This concentration is designed to develop the personal and professional competencies of those who plan to serve guidance needs as a classroom teacher, teacher-counselor, counselor, dean of boys or girls, director of guidance, home-room supervisor, attendance worker, or college student personnel worker.

ADMISSION REQUIREMENTS

1. A bachelor's degree from an accredited college with at least a 2.5 grade point average (C plus) based on the system of A-4; B-3; C-2; D-1; and F-0.
2. A substantial background in the behavioral sciences, e.g., psychology and sociology.
3. A sincere interest in social service and the ability to develop a helping relationship with others.
4. A valid teacher's certificate and two years of successful teaching experience, or its equivalent. However, this requirement may be waived for those who do not seek certification as a school counselor.

MASTER'S DEGREE REQUIREMENTS

To earn a Master of Science degree with a concentration in Guidance requires that the student earn not less than 30 semester hours of credit with a B average, with a minimum of fifteen semester credits in graduate (500 series) courses.

Required courses listed by areas:

Sem. Hrs.

1. Introduction to Personnel and Guidance Work
   *Ed. 401 Introduction to Guidance and Student Personnel Services --- 2
   (If this course has been taken at the undergraduate level, an elective should be substituted for it.)
2. Statistics and Appraisal Instruction
   *Ed. 561 Educational Statistics ---------- 2
   *Ed. 490 Test and Measurements in Counseling ---------- 2
   †Ed. 541 Individual Mental Testing ---------- 2
   ‡Ed. 550 Appraising the Individual ---------- 2
3. Counseling Theory and Techniques
   *Ed. 475 Counseling Procedures ---------- 2
   Ed. 513 Personality and Mental Health ---------- 2
4. Vocational Development Theory and Sources
   †Ed. 491 Occupational and Educational Information ---------- 2
5. Group Procedures and Processes
   †Ed. 552 Group Guidance Procedures ---------- 2
6. Program Development and Management Responsibilities of School Counselors
   Ed. 565 Organization and Administration of Guidance ---------- 2
7. Supervised Practice
   Ed. 590 Supervised Practice in Counseling ---------- 2
8. Research
   *Ed. 501 Research Procedures ---------- 2
   Ed. 510 Applied Research ---------- 2
   Ed. 570 Thesis ---------- 6
   or
   Ed. 531 Problems in Guidance (Plan B) ---------- 2

*These courses are to be taken as early in the sequence as possible.
†These courses are prerequisites for Ed. 550.
‡This course is a prerequisite for Ed. 590

Those who expect to assume elementary school positions are encouraged to include Ed. 429 and Ed. 538 in their course selections.

9. Additional Courses selected from the Following to Complete a Minimum of 30 Semester Hours of Credit:

Sem. Hrs.

Ed. 350 Adolescent Psychology ---------- 2
Ed. 352 Child Psychology (Required of Elementary School Counselors) 2
Ed. 429 Guidance in the Elementary School (Required as for Ed. 352) 2

Ed. 430 Industrial Psychology	2
Ed. 431 Abnormal Psychology	2
Ed. 432 Psychology of the Exceptional Child	2
Ed. 502 Principles of Supervision	2
Ed. 514 Vocational Psychology	2
Ed. 526 Administration	2
Ed. 538 Elementary School Curriculum	2
Ed. 539 High School Curriculum	2
Ed. 555 Psychology of Learning	2
H.E. 427 Workshop in Family Relations and Mental Health	1
S.S. 326 Marriage and the Family	2
S.S. 411 Problems of American Society	2
S.S. 414 Labor Problems	2
S.S. 420 Introduction to Cultural Anthropology	3

Those who have limited backgrounds in the behavioral sciences, will be required to take appropriate courses in education, psychology, curriculum, and social sciences, in addition to the 30 semester hours of credit usually required for counselor certification.

Home Economics

This major is designed to increase the personal and professional development of those who plan to serve in the home economics or the home economics education fields. There are two concentrations available in the Home Economics major, namely: Clothing, Textiles, and Related Art or Food Science and Nutrition. In cooperation with the major adviser, the student plans a program, based on her undergraduate record, which will best meet her individual needs as a professional worker in the chosen major or concentration.

CLOTHING, TEXTILES AND RELATED ART

This concentration is designed to increase professional competencies through additional and more intensive study; to develop an awareness of trends in clothing, textiles and related art; to develop an appreciation of art applications and values for aesthetic enrichment; to develop an understanding of the inter-relatedness of clothing, textiles and related art with other disciplines; to increase knowledge and appreciation of art as it relates to the home, clothing and textile industry and every day life.

ADMISSION REQUIREMENTS

In general, those seeking admission must have a bachelor's degree from an accredited college with a major in Home Economics or Home Economics Education with a substantial background in the appropriate major or concentration—Clothing, Textiles and Related Art. The undergraduate record must have a 2.5 grade point average (C plus) based on the system of A-4; B-3; C-2; D-1; and F-0.

MASTER'S DEGREE REQUIREMENTS

To earn the Master of Science degree in Home Economics (with a major in Clothing, Textiles, and Related Art), the student must earn not less than 30 semester hours of credit with a B average which will be distributed as follows:

1. A minimum of fifteen semester credits must be earned in graduate (500 series) courses.
2. Eight to twelve semester credits—required of all students.

	Sem. Hrs.
Ed. 501 Research Procedures	2
Ed. 510 Applied Research	2
Ed. 561 Educational Statistics	2
and either	
Ed. 570 Thesis	6
or	
H.E. 551 Problems in Clothing, Textiles, and Related Art (Plan B)	2

3. A minimum of six credits must be selected in the 500 series from the Clothing, Textiles, and Related Art offerings. In addition the student should select a minimum of one course from each area. The remaining courses to be selected, with consent of the adviser, from the courses listed in the areas of Food Science and Nutrition or Home Economics Education.

CLOTHING	Sem. Hrs.
H.E. 412 Applied Dress Design	3
H.E. 413 Flat Pattern Design	2
H.E. 415 Economics of Family Clothing	3
H.E. 471 History of Costume	3
H.E. 500 Tailoring	3
H.E. 505 Clothing Today's Family	2
H.E. 514 Seminar in Clothing	2

TEXTILES	Sem. Hrs.
H.E. 544 Workshop in Clothing and Textiles	2
H.E. 572 Advanced Textiles	2

RELATED ART	Sem. Hrs.
A 410 Pottery	3
A 423 Problems in Home Furnishings	2
A 424 Weaving	2
A 430 Art History from Ancient to Medieval	3
A 431 Art History from Renaissance through Contemporary	3
A 436 Costume Design	2
A 448 Housing	3
A 460 Creative Art	2
A 526 Seminar in Related Art	2

FOOD SCIENCE AND NUTRITION

This concentration is designed to increase the professional knowledge and competency of those engaged in food science and nutrition fields. Specialization in these areas may lead to advanced positions in teaching, food service administration, dietetics, and nutrition work in schools, public health service or social welfare organizations. Graduate work in food science and nutrition also offers preparation for students interested in preparing for positions in food demonstration, research, home service and a wide range of home economics positions in business.

ADMISSION REQUIREMENTS

In general those seeking admission must have a bachelor's degree from an accredited college with a major in Home Economics or Home Economics Education with a substantial background in the appropriate major or concentration—Food Science and Nutrition. The undergraduate record must have a 2.5 grade point average (C plus) based on the system of A-4; B-3; C-2; D-1; and F-0.

MASTER'S DEGREE REQUIREMENTS

To earn the Master of Science degree in Home Economics (with a major in Food Science and Nutrition), the student must not earn less than 30 semester hours of credit with a B average which will distributed as follows:

1. A minimum of fifteen semester credits must be earned in graduate (500 series) courses.
2. Eight to twelve semester credits—required of all students.

	Sem. Hrs.
Ed. 501 Research Procedures	2
Ed. 510 Applied Research	2
Ed. 561 Educational Statistics	2
and either	
Ed. 570 Thesis	6
or	
H.E. 547 Problems in Food Science and Nutrition (Plan B)	2

3. A minimum of six credits must be selected in the 500 series from the Food Science and Nutrition, and Food Service Administration courses. The remaining courses to be selected, with the consent of the major adviser, from courses listed in the areas of Clothing, Textiles, and Related Art or Home Economics Education.

FOOD	Sem. Hrs.
H.E. 438 Experimental Foods	3
H.E. 442 Advanced Food Studies	2
H.E. 508 Food Seminar	2
H.E. 546 Modern Methods in Food Preparation	2-3
H.E. 556 Advanced Experimental Foods	3-4

NUTRITION	Sem. Hrs.
H.E. 418 Diet Therapy	3
H.E. 501 Trends in Nutrition	2
H.E. 511 Nutrition Seminar	2

FOOD SERVICE ADMINISTRATION	Sem. Hrs.
H.E. 300 Applied Institution Management	3
H.E. 310 Nutrition and Dietetics	3
H.E. 328 Food Service Administration	3
H.E. 441 Food Service Accounting	3
H.E. 443 School Food Service	2-3
H.E. 452 Quantity Food Production and Service	3
H.E. 454 Institution Food Purchasing	2
H.E. 455 Food Service Equipment	2
H.E. 463 Problems in Food Service Administration	2-3
H.E. 476 Nutrition Education for Elementary Grades	2
H.E. 513 Seminar in Food Service Administration	2

Home Economics Education

The purpose of this major is directed toward the extension of the professional training of home economics teachers. It is designed for those who wish to enter the fields of supervision, administration, classroom teaching, or teacher education.

ADMISSION REQUIREMENTS

In general, those seeking admission must have a bachelor's degree from an accredited college with a major in Home Economics Education. The undergraduate record must have a 2.5 grade point average (C plus) based on the system of A-4; B-3; C-2; D-1; and F-0.

MASTER'S DEGREE REQUIREMENTS

To earn a Master of Science degree in Home Economics Education, the student must earn not less than 30 semester hours of credit with a B average which will be distributed as follows:

1. A minimum of fifteen semester credits must be earned in graduate (500 series) courses.
2. Eight to twelve semester credits—required of all students.

	Sem. Hrs.
Ed. 501 Research Procedures	2
Ed. 510 Applied Research	2
Ed. 561 Educational Statistics	2
and either	
Ed. 570 Thesis	6
or	
Ed. 575 Problems in Home Economics Education (Plan B)	2

3. A minimum of six credits must be selected in the 500 series from the Home Economics Education courses. The remaining courses to be selected, with the consent of the major adviser, from the courses listed in the areas of Clothing, Textiles, and Related Art; Food Science and Nutrition; Psychology, Guidance, Sociology or Family Life and Child Development.

EDUCATION

	Sem. Hrs.
H.E. 400 Demonstration Techniques	2
Ed. 402 Principles of Vocational and Adult Education	2
E. 415 Technical Writing for Home Economics	3
Ed. 472 Coordination (Vocational Homemaking)	2
Ed. 500 Philosophy of Modern Education	2
Ed. 502 Principles of Supervision	2
Ed. 506 Problems in Supervision	2
Ed. 513 Personality and Mental Health	2
Ed. 526 Administration	2
Ed. 555 Psychology of Learning	2

HOME ECONOMICS EDUCATION

	Sem. Hrs.
Ed. 416 Problems of Vocational and Adult Homemaking	2
Ed. 428 Home Economics for Junior High Schools	3
Ed. 451 Evaluation in Home Economics Education	2
Ed. 462 Workshop for Homemaking Teachers	2-3
Ed. 508 Curriculum Studies in Home Economics Education	2-3
Ed. 520 Current Problems in Home Economics Education	2
Ed. 525 Supervision of Student Teaching in Home Economics	3
Ed. 544 Seminar in Home Economics Education	2

Industrial Education

This major is designed to increase the personal and professional development of those who plan to serve in industrial education. Sufficient elective courses are provided to permit the student, in cooperation with his major adviser, to plan a program to meet his individual needs as a classroom teacher, supervisor, or administrator of industrial education or industrial arts. Advanced Technical Problems courses are offered to increase classroom teachers' competencies as instructors in highly specialized areas of technical work such as Audio-Visual Communications, Industrial Graphics, Graphic Arts, Electricity, Metals, Woodworking, and Power and Transportation.

ADMISSION REQUIREMENTS

Those who are admitted must have a bachelor's degree from an accredited college with a major in industrial education or industrial arts. The major must include 42 semester hours of technical shop and drafting courses, and 22 semester hours of education courses including general psychology. A variation of six semester hours is permitted in each field, provided the total is 64 semester hours. A scholastic undergraduate record of at least 2.5 grade point average (C plus) is required based on the system of A-4; B-3; C-2; D-1; and F-0.

MASTER'S DEGREE REQUIREMENTS

To earn the Master of Science degree with a major in Industrial Education requires that the student earn not less than 30 semester hours of credit, with a B average, which will be distributed as follows:

1. A minimum of fifteen semester hours of credit must be earned in graduate (500 series) courses.
2. Eight to twelve semester credits—required of all students.

	Sem. Hrs.
Ed. 501 Research Procedures	2
Ed. 510 Applied Research	2
Ed. 561 Educational Statistics	2
and either	
Ed. 570 Thesis	6
or	
I.E. 535 Problems in Industrial Education (Plan B)	2

3. Not less than four nor more than 14 credits from the following as selected and approved by the major adviser.

	Sem. Hrs.
Ed. 360 Audio-Visual Education	2
I.E. 400 Quality Control	2
Ed. 402 Principles of Vocational and Adult Education	2
I.E. 405 Advanced Photography	2
I.E. 410 Production Control	2
I.E. 415 Technical Education Programs	2
I.E. 420 Time and Motion Study	2
S.F. 423 General Safety	3
Sc. 425 Physics—Strength of Materials	3
Sc. 427 Physics—Electronics	2
Sc. 429 Physics—Modern Physics	3
Sc. 431 Physics—Statics	2
Sc. 433 Physics—Dynamics	2
Ed. 439 Motion Picture Production	2
I.E. 439 Industrial Electronics	2
I.E. 440 Plastics II	2
S.F. 448 Driver Education	3
S.F. 452 Administration of Driver Education	3
S.F. 455 Traffic and Highway Safety	3
I.E. 461 Tool and Die Making	2
I.E. 462 Maintenance of Metalworking Equipment	2
I.E. 464 Tool and Machine Conditioning	2
Ed. 470 Conference Leading I	2
Ed. 472 Coordination	2
I.E. 477 Metals Production and Processes	2
I.E. 520 Labor and Industrial Relations	2
I.E. 533 Survey Procedures	2

I.E. 537 Curriculum Procedures III ---------- 2
Ed. 551 Programmed Instruction ---------- 2
I.E. 563 Design in Industrial Arts ---------- 2
Ed. 568 Curriculum Procedures II ---------- 2
(Consult major adviser concerning selection of Advanced Technical Problems courses listed below)
I.E. 540 Advanced Technical Problems — Audio-Visual ---------- 2-6
I.E. 541 Advanced Technical Problems—Industrial Graphics ---------- 2-6
I.E. 542 Advanced Technical Problems—General Shop ---------- 2-6
I.E. 543 Advanced Technical Problems — Graphic Arts ---------- 2-6
I.E. 544 Advanced Technical Problems—Electricity ---------- 2-6
I.E. 545 Advanced Technical Problems—Metals ---------- 2-6
I.E. 546 Advanced Technical Problems—Woodworking ---------- 2-6
I.E. 547 Advanced Technical Problems—Power and Transportation ---------- 2-6

4. Additional courses to complete the required 30 semester credits selected from among the following:

Sem. Hrs.

Ed. 401 Introduction to Guidance and Student Personnel Services ---------- 2
Sp. 406 Communication Skills for Educational Leadership ---------- 2
S.S. 407 History of the Americas ---------- 3
S.S. 409 Recent History of the United States ---------- 2
E 410 Writing and Selling Feature Articles ---------- 2
S.S. 410 Modern World ---------- 3
S.S. 411 Problems of American Society ---------- 2
S.S. 414 Labor Problems ---------- 2
E. 416 Technical Writing for Industry ---------- 3
S.S. 417 American Politics ---------- 3
S.S. 418 History of Modern Russia ---------- 2
S.S. 420 Cultural Anthropology ---------- 3
I.E. 425 Industrial Arts for Elementary Teachers ---------- 2
Ed. 430 Industrial Psychology ---------- 2
S.S. 430 Sociology of the Community ---------- 3
Sc. 432 Heredity and Eugenics ---------- 2
S.S. 440 Sociology of Work ---------- 3
Ed. 441 Education Evaluation ---------- 2
Sc. 442 Community Hygiene ---------- 2
S.S. 450 Managerial Economics ---------- 3
S.S. 460 Juvenile Delinquency ---------- 3
Sp. 470 Radio and Television Workshop ---------- 2
Ed. 475 Counseling Procedures ---------- 2
S.S. 475 Sociology of Minority Groups ---------- 3
Ed. 479 Public Relations ---------- 2
Ed. 481 American Higher Education ---------- 2
Ed. 487 Civil Defense Education ---------- 2
Ed. 490 Tests and Measurements in Counseling ---------- 2
I.E. 490 Technical Field Experience ---------- 1-6

Ed. 491 Occupational and Educational Information ---------- 2
Ed. 500 Philosophy of Modern Education ---------- 2
Ed. 502 Principles of Supervision ---------- 2
Ed. 506 Problems of Supervision ---------- 2
Ed. 513 Personality and Mental Health ---------- 2
Ed. 514 Vocational Psychology ---------- 2
Ed. 526 Administration ---------- 2
Ed. 555 Psychology of Learning ---------- 2
Ed. 560 Audio-Visual Administration ---------- 2

5. Other courses than those listed herein may, upon petition to the Dean of Graduate Studies, be accepted in lieu of those listed under items 3 and 4 above.

Vocational Education

This major is designed to develop the personal and professional competencies of those who plan to serve in the vocational field as a teacher of trades and industries or home economics or as a coordinator, supervisor, or director. The choice of electives, selected through consultation with the major adviser, is adapted to the goal of the individual.

ADMISSION REQUIREMENTS

In general, certified vocational teachers with a bachelor's degree in the field of agriculture, commerce, engineering, industrial education, or home economics education and who possess 42 semester credits of technical work in the specialized field, and 22 semester credits in education including general psychology, may be admitted to graduate work for a vocational major. A variation of six semester hours of credit in technical or educational fields is permitted, provided the total is 64 semester hours of credit. Each student is required to submit a statement of his certification as a vocational teacher from his state Vocational Director. A scholastic undergraduate record with at least a 2.5 grade point average (C plus) based on the system of A-4; B-3; C-2; D-1; and F-0. Those planning to be trade and industrial teachers or home economics teachers must submit an undergraduate record appropriate to the specific field.

MASTER'S DEGREE REQUIREMENTS

To earn the Master of Science degree with a major in Vocational Education requires that the student earn not less than 30 semester hours of credit with a B average which will be distributed as follows:

1. A minimum of fifteen semester credits must be earned in graduate (500 series) courses.

2. Eight to twelve semester credits—required of all students.

	Sem. Hrs.
Ed. 501 Research Procedures	2
Ed. 510 Applied Research	2
Ed. 561 Educational Statistics	2
and either	
Ed. 570 Thesis	6
or	
I.E. 536 Problems in Vocational Education (Plan B)	2

3. Twelve semester hours of course work is required for vocational certification of teachers, and part-time directors as listed below. Any equivalent course work completed on the undergraduate transcript is not to be repeated.
   (These credits meet Wisconsin Vocational certification requirements.)
   A. Knowledge of history and objectives of vocational and adult education and its relationship to the total educational programs. (2 credits)
   B. Knowledge of the development, growth, and learning processes of the individuals to be taught. (3 credits)
   C. Knowledge of methods and techniques of teaching and development of course material. (3 credits)
   D. Supervised teaching experience (4 credits or equivalent)
   In addition to the above, teacher-coordinators must also have knowledge of special methods and problems of coordination. (4 credits)
   Note: Courses available to meet above certification requirements are:

	Sem. Hrs.
Ed. 303 Educational Psychology	2
Ed. 401 Introduction to Guidance and Student Personnel Services	2
Ed. 402 Principles of Vocational and Adult Education	2
Ed. 407 Teaching Trade and Industrial Subjects	2
Ed. 416 Problems in Teaching Vocational and Adult Homemaking	2
Ed. 443 Organization of Content Material for Trade and Industrial Subjects	2

4. Directors, supervisors, coordinators, counselors, department heads, and master teachers are required to have completed courses or equivalents as follows:
   A. Demonstrate the same competence as teachers
   B. Demonstrate knowledge of special methods and problems relative to the position (4 credits)
   C. Coordinators, counselors, and master teachers to obtain a Master's degree
   D. Supervisors, department heads to obtain 30 credits or the equivalent beyond the Bachelor's degree.

5. The balance of credits will be selected with the advice of the major adviser from those listed below or courses listed in other graduate curricula, approved in each case by the major adviser.

	Sem. Hrs.
Ed. 350 Adolescent Psychology	2
Ed. 352 Child Psychology	2
Ed. 360 Audio-Visual Education	2
I.E. 415 Technical Education Programs	2
S.F. 423 General Safety	3
Ed. 430 Industrial Psychology	2
Ed. 439 Motion Picture Production	2
I.E. 439 Industrial Electronics	2
Ed. 441 Education Evaluation	2
I.E. 461 Tool and Die Making	2
Ed. 470 Conference Leading I	2
Ed. 472 Coordination	2
Ed. 475 Counseling Procedures	2
I.E. 477 Metals Production and Processes	2
Ed. 481 American Higher Education	2
Ed. 490 Tests and Measurements in Counseling	2
Ed. 491 Occupational and Educational Information	2
Ed. 492 Administration of Vocational and Adult Education	2
Ed. 502 Principles of Supervision	2
Ed. 506 Problems of Supervision	2
Ed. 514 Vocational Psychology	2
Ed. 526 Administration	2
I.E. 533 Survey Procedures	2
I.E. 537 Curriculum Procedures III	2
(Consult major adviser concerning selection of Advanced Technical Problems courses.)	
I.E. 540 Advanced Technical Problems — Audio-Visual	2-6
I.E. 541 Advanced Technical Problems—Industrial Graphics	2-6
I.E. 542 Advanced Technical Problems—General Shop	2-6
I.E. 543 Advanced Technical Problems — Graphic Arts	2-6
I.E. 544 Advanced Technical Problems—Electricity	2-6
I.E. 545 Advanced Technical Problems—Metals	2-6
I.E. 546 Advanced Technical Problems—Woodworking	2-6
I.E. 547 Advanced Technical Problems—Power and Transportation	2-6
Ed. 560 Audio-Visual Administration	2
Ed. 568 Curriculum Procedures II	2

DESCRIPTION OF COURSES

The courses in the 300 and 400 series listed in this bulletin are courses offered for graduate credit. Courses in the 500 series are graduate courses restricted to graduate students only.

In advanced courses prerequisites are listed in the course descriptions. Occasionally, for flexibility in programming, students are permitted to take certain courses concurrently; such courses are designated as "Prerequisite or Parallel."

The distribution of lecture and laboratory hours for shop and laboratory courses is given in parentheses. For example, (1-4) means one hour of lecture or discussion and four hours of laboratory per week. Most courses operate on the eighteen-week semester, and credits are expressed in semester hours. However, certain courses are scheduled on the nine-week or quarter basis and the class hours per week are increased accordingly.

Education and Psychology

PSYCHOLOGY

Education 350 *Adolescent Psychology* 2 Cr.
Prerequisite: Ed. 123
The physical, emotional, social, moral, and intellectual development of secondary school youth.

Education 352 *Child Psychology* 2 Cr.
Prequisite: Ed. 123
Psychological development of children. Emphasis on age groups spanning the pre-school and pre-pubescent child; methods for scientific measurement and understanding of child behavior.

Education 430 *Industrial Psychology* 2 Cr.
Prequisite: Ed. 123
Use of psychological methods in personnel management in industry. Emphasis is on personnel policy formation and techniques in placement, interviewing, efficiency, job evaluation and training, merit rating, morale, and safety.

Education 431 *Abnormal Psychology* 2 Cr.
A study of more serious mental disturbances. Emphasis on the growing importance of mental disorders and on their early detection and referral.

Education 432 *Psychology of the Exceptional Child* 2 Cr.
Guidance of the learning and development of children who deviate from the normal, the mentally retarded, gifted, socially and emotionally retarded and those with visual, speech and orthopedic problems.

Education 513 *Personality and Mental Health* 2 Cr.
The nature of personality and the conditions which make for its wholesome development, its maintenance and integration. Personality inventories used for self-analysis.

Education 514 *Vocational Psychology* 2 Cr.
Application of psychological techniques to industry with emphasis on employee testing, training, scientific management, efficiency, merit rating, promotion, safety, morale and labor relations.

Education 555 *Psychology of Learning* 2 Cr.
The nature, theories, principles, forms and conditions of learning. Acquisitions, retention, transfer and related phenomena. Applications are made.

EDUCATION—GENERAL

Education 402 *Principles of Vocational and Adult Education* 2 Cr.
The philosophy, historical development, principles and practices, and organization of public vocational education in the nation.

Education 472 *Coordination* 2 Cr.
Principles of coordination in vocational education for apprenticeship training, distributive education, trade and industries, and diversified occupations. Work-experience program in general education.

Education 479 *Public Relations* 2 Cr.
Defines the publics, objectives, and media of public relations in industry and education. Provides practice with such tools as news stories and features. Each student carries out an actual publicity program in the community.

Education 481 *American Higher Education* 2 Cr.
An introduction to the ramifications of the American system of higher education including history, philosophy, administration, curriculum, students, teachers, and demands for employment. Undergraduates by permission of the instructor only.

Education 487 *Civil Defense Education* 2 Cr.
Governmental, scientific, and moral aspects of civil defense with emphasis in curriculum enrichment, school emergency planning, and individual responsibilities. Beneficial for any teacher but especially for teachers of social science, general science, physics, chemistry, agriculture, home economics, and upper elementary. Certificates granted by the State Board of Vocational and Adult Education that could lead to part-time employment in the Civil Defense Adult Education Program. Individual experiment with radioisotope according to teacher's field and development of curriculum guide or school emergency plan required.

Education 492 *Administration of Vocational and Adult Education* 2 Cr.
Survey and analysis of problems in the administration of a vocational and adult school including legal status, policy making, staff personnel, student personnel, curriculum, evaluation, public relations, physical plant, and business management.

Education 500 *Philosophy of Modern Education* 2 Cr.
A comparative study of the main schools of educational philosophy and of their influence in contemporary education, thought and practice, points of agreement and of conflict.

Education 501 *Research Procedures* 2 Cr.
Basic principles of educational research. A study of the selection of a problem, survey of the literature, type of educational research, planning the study, organization and interpretation of data, and preparation of the research report.

Education 502 *Principles of Supervision* 2 Cr.
Basic principles, types, functions, organizations, and plans of supervision. Interpretation and application of creative supervision plans; individual and class projects concerned with applied methods of supervision in selected educational areas.

Education 506 *Problems of Supervision* 2 Cr.
Prerequisite: Ed. 502
Interpretation and application of basic principles of supervision. Study of recent developments in the field of supervision. Selection, analysis, interpretation, and application of plans for a selected supervisory activity.

Education 510 *Applied Research* 2 Cr.
Prerequisite: Ed. 501
Applied research. Interpretation and application of research procedures, use of scientific methods for solving problems and orientation of student in terms of selected research problems.

Education 526 *Administration* 2 Cr.
Philosophy and principles underlying organization and operation of public education on the local, state, and national levels in the United States. Examinations of prevailing practices and current problems of school management.

Education 538 *Elementary School Curriculum* 2 Cr.
A study of the social, economic and educational forces operating to bring about changes in the curriculum of the elementary school. Outstanding state and local curriculum construction programs. Observation and evaluation of the modern elementary school curriculum.

Education 539 *High School Curriculum* 2 Cr.
A study of the social, economic and educational forces operating to bring about changes in the curriculum of the secondary school. Outstanding state and local curriculum construction programs. Observation and evaluation of the modern high school curriculum.

Education 551 *Programmed Instruction* 2 Cr.
Theory, principles, application and evaluation of programmed instruction techniques. Survey of commercial programs, sources, and types of teaching machines. Practice in writing a programmed instruction unit.

Education 561 *Educational Statistics* 2 Cr.

Methods of collecting, recording, evaluating, and interpreting data. Illustrative problems in education, business, and industry at the practical and research levels.

Education 570 *Thesis Plan A* 6 Cr.

Prerequisite: Ed. 510

Independent research on thesis under direction of investigation adviser. Selection of problem, development of outline, review of literature, compilation of bibliography, plan of method of attack, conduct of research, interpretation of findings, and preparation of the final paper according to thesis standards. Student may enroll for 2, 4, or 6 semester hours of credit for a final total of six.

EDUCATION—AUDIO-VISUAL

Education 360 *Audio-Visual Education* (1-2) 2 Cr.

Methods of selecting and using audio-visual materials effectively in teaching. Experience in operating equipment, production of materials, practice in planning and presenting a lesson.

Education 439 *Motion Picture Production* (0-4) 2 Cr.

Prerequisites: I.E. 205, Ed. 360 or consent of instructor

Production of instructional sound motion pictures utilizing "live" projects which will be marketed. Production planning, content research, treatments, storyboard, script writing, shooting, editing, sound recording, titling, and other technical problems of production.

Education 522 *Problems in Audio-Visual Communications* 2 Cr.

Prerequisite: Ed. 510

Identification, selection, and completion of a problem in audio-visual communications, culminating in a Plan B paper.

Industrial Education 540 *Advanced Technical Problems—Audio-Visual Education* 2-6 Cr.

Prerequisites: Ed. 501, six semester credits in the audio-visual field including graphic arts, consent of the head of the Audio-Visual Center.

Advanced technical work for specialists in the audio-visual field. Recent developments, advanced technical work, experimental work, and technical reports in audio-visual education.

Education 547 *Communications Media Design* 2 Cr.

Prerequisite: Ed. 360

Identification of the communication problems through analysis of content, audience and media. Selection, design, and preparation of audio-visual materials.

Education 560 *Audio-Visual Administration* 2 Cr.

Prerequisites: Ed. 360, 501

Seminar in administration and supervision of public school audio-visual programs. Group field projects supplement discussions of related literature.

EDUCATION—GUIDANCE

Education 401 *Introduction to Guidance and Counseling* 2 Cr.

Prerequisite: For education students, junior standing

An overview of policies and practices of organized guidance programs for schools and colleges. Emphasis is given to the philosophy and evaluation of guidance, understanding the individual, counseling, and group guidance as it affects the classroom teacher and personnel worker.

Education 429 *Guidance in the Elementary School* 2 Cr.

The nature and conditions of guidance in the elementary school. Curricular and non-curricular guidance techniques, referrals, and parent counseling. Recommended principles and practices in guidance applied to the elementary school child.

Education 475 *Counseling Procedures* 2 Cr.

Prerequisite: Ed. 401

Psychological study of the interview. Consideration given to various interview objectives, points of reference, kinds of questions, and the improvement of techniques for various purposes of the teacher and counselor.

Education 490 *Tests and Measurements in Counseling* 2 Cr.

Prerequisites: Ed. 401, 441

Selection, interpretation, and use of tests and inventories for teachers and counselors. Study of achievement, aptitude, interest and personality tests with experience in the interpretation of results.

Education 491 *Occupational and Educational Information* 2 Cr.

Prerequisites: Ed. 401

Study of occupational and educational opportunities. Includes evaluation of information sources, occupational requirements, trends and uses.

Education 531 *Problems in Guidance* 2 Cr.

Prerequisites: Twelve hours of graduate credit in the counselor education sequence, including Ed. 501, 510, and 561, or the consent of the instructor.

Plan B investigations are the primary purpose of this course. Students who are ready to write their Plan B paper should register for this course and then confer with the counselor education major adviser to select a staff member who will serve as an investigation adviser. Meetings with the adviser are by arrangement only.

Education 541 *Individual Mental Testing* 2 Cr.

Prequisites: Ed. 490 and 565, or consent of instructor

Revised Stanford-Binet, Wechsler Adult Intelligence Scale for Children. Demonstration testing, group testing under supervision, and individual testing accompanies a study of the theory of mental testing.

Education 550 *Appraising the Individual* 2 Cr.

Prerequisites: Ed. 491, 541, 552

The case study approach to synthesis of test and non-test appraisal data.

Education 552 *Group Guidance Procedures* 2 Cr.
Prerequisite: Ed. 401
A study of group approaches for providing guidance services to pupils. Designed to help counselors and teacher-counselors understand how groups may be used as a setting for guidance and counseling.

Education 565 *Organization and Administration of Guidance* 2 Cr.
Prerequisite Ed. 475
Duties of administrators, guidance directors, deans, teachers, parents, pupils and lay persons in guidance work. A study of types of organization methods of initiating programs and of in-service training.

Education 590 *Supervised Practice in Counseling* 2 Cr.
Prerequisites: Ed. 550 and consent of instructor
A minimum of 120 hours of closely supervised counseling experience through a series of interviews with selected counselees.

EDUCATION—HOME ECONOMICS

Education 416 *Problems in Teaching Vocational and Adult Homemaking* 2 Cr.
Prerequisites: Ed. 402 and 427, and three years teaching vocational and/or adult homemaking
Analysis of problems confronting experienced teachers; development of tentative solutions.

Education 428 *Home Economics for the Junior High School* 3 Cr.
Principles of curriculum development for home economics program in the junior high school. Emphasis on recent research, philosophy, and emerging practices in program patterns.

Education 451 *Evaluation in Home Economics Education* 2 Cr.
Criteria, techniques, and devices for evaluating the home economics program. Opportunity for developing measuring devices.

Education 462 *Workshop for Homemaking Teachers* 2-3 Cr.
Prerequisite: Teaching experience or consent of instructor
Planned for homemaking teachers in one or two teacher departments. Teachers select problems on which they wish to work.

Education 508 *Curriculum Studies in Home Economics* 2-3 Cr.
Principles of curriculum construction. Review of recent literature on curriculum development. Evaluation of curriculum practice and techniques. Students may work on own curriculum problems.

Education 520 *Current Problems in Home Economics Education* 2 Cr.
Consideration of problems in contemporary living that are affecting home economics education and their influence on the teaching of homemaking. Each student will work on an individual problem.

Education 525 *Supervision of Student Teaching in Home Economics* 3 Cr.
Prerequisite: Teaching experience or consent of instructor
Purposes and philosophy of supervision, the role of the cadet center in preparing home economics teachers, relationships and responsibilities of persons involved, orientation, guidance, and evaluation of student teachers.

Education 544 *Seminar in Home Economics Education* 2 Cr.
Readings, discussions and reports of recent literature in education with implications for teaching home economics. Paper on individual problem.

Education 575 *Problems in Home Economics Education* 2 Cr.
Prerequisite: Ed. 510
Identification, selection and completion of a problem in Home Economics Education, culminating in a Plan B paper.

EDUCATION—INDUSTRIAL EDUCATION

Education 407 *Teaching Trade and Industrial Subjects* 2 Cr.
Recognized principles and methods of teaching applied to typical shop, laboratory, technical, and/or related subjects found in schools of vocational and adult education.

Industrial Education 415 *Technical Education Programs* 2 Cr.
Prerequisite: Senior or graduate standing
Philosophy, principles, organization, operation, and structure of technical education programs at the 13th and 14th year or college level.

Safety 423 *General Safety* 3 Cr.
Highway, home, industrial, farm, school, and recreational safety, fire prevention, civil defense, color dynamics. Promotion of a safety program, its content, methods, materials of instruction.

Education 441 *Education Evaluation* 2 Cr.
Evaluative devices and their use in measuring student attainment of course objectives. Characteristics and limitations of different types of tests and test questions; the interpretation of test scores and grades by means of simple statistical procedures; methods of grading manipulative work and assigning final grades.

Education 443 *Organization of Content Material for Trade, Technical, and Industrial Subjects* 2 Cr.
Individual work following approved practice in the development of instructional material for vocational teaching.

Safety 448 *Driver Education* 3 Cr.
Teaching methods in driver training. Teaching a trainee to drive so as to pass written and road tests. Research problem or construction of test apparatus. Driver Education certification by A.A.A.

Safety 452 *Administration of Driver Education* 3 Cr.
Prerequisites: S.F. 448 and Driver Education Certificate or its equivalent
Program details in driver education in our nation's schools. State laws, school laws and regulations, teaching requirements, technique for improving practice driving instruction, and a survey of research studies; improving teaching methods through evaluation and analysis; use of diagnostic tests and materials. Cooperation with state and other organizations in the presentation of instructional materials and tests.

Safety 455 *Traffic and Highway Safety* 3 Cr.
Prerequisites: S.F. 423 and 448
A study of traffic surveys which involve high accident frequency location, driver observance of stop signs, speed signs, and traffic signals, pedestrian observance of traffic signals ,motor vehicle and pedestrain volume. Includes accident records and facts as well as accident investigation procedures.

Education 470 *Conference Leading I* 2 Cr.
Prerequisite: Ed. 305 or equivalent
Study of teaching. Study and practice of principles and techniques of conference leading as an instructional device in vocational education.

Industrial Education 520 *Labor and Industrial Relations* 2 Cr.
Human relations in industry from the viewpoint of labor, management and the government.

Industrial Education 533 *Survey Procedures* 2 Cr.
Prerequisite: Ed. 501
Procedures and organizations for conducting surveys. Application of principles by making and writing the report of an actual survey.

Industrial Education 535 *Problems in Industrial Education* 2 Cr.
Prerequisite: Ed. 510
Identification, selection, and the completion of a problem in Industrial Education, culminating in a Plan B paper.

Industrial Education 536 *Problems in Vocational Education* 2 Cr.
Prerequisite: Ed. 510
Identification, selection, and completion of a problem in Vocational Education culminating in a Plan B paper.

Industrial Education 537 *Curriculum Procedures III* 2 Cr.
The principles of secondary school curriculum planning based on major educational movements and philosophies. Aims and objectives of major subject areas analyzed with major emphasis on industrial education.

Education 568 *Curriculum Procedures II (Analysis Techniques for Instructors)* 2 Cr.
Not available to persons who have had Ed. 234 or Ed. 235. Study of analysis of occupations for instructional purposes and for personnel work. Jobs, operations, information topics, blocking, custom occupations, service occupations, checking levels, progression factors defined. Development of a complete analysis of an occupation for instructional use.

Home Economics

CLOTHING AND TEXTILES

Home Economics 412 *Applied Dress Design* (1-4) 3 Cr.
Prerequisite: H.E. 218
Application of principles of costume design in the construction of garments by means of draping. Emphasis on individuality in costume through appropriate use of line, proportion, color and texture.

Home Economics 413 *Flat Pattern Design* (1-2) 2 Cr.
Prerequisites: H.E. 218 and 220
Application of principles of developing patterns of individual design from a basic foundation pattern. Fitting problems solved by using a basic pattern made in muslin.

Home Economics 415 *Economics of Family Clothing* (3-0) 3 Cr.
Prerequisite or Parallel: S.S. 309
An introduction to patterns of clothing consumption, production, and distribution as they relate to the family. Individual reports and papers.

Home Economics 465 *European Study Tour* 3 Cr.
Study tour introducing students to national and international centers of influence in art, clothing, and textiles. Six-week tour of European mills and fashion centers.

Home Economics 471 *History of Costume* (3-0) 3 Cr.
Development of costume throughout the ages. Fashion as it reflects the social climate of the period; factors which influence change in fashion; qualities in style that make for lasting beauty; influence of the past on present day costume.

Home Economics 500 *Tailoring* (1-4) 3 Cr.
Prerequisite: H.E. 218 or consent of instructor
Application of tailoring techniques in the making of suits and coats. Preparation of illustrative material for teaching.

Home Economics 505 *Clothing Today's Family* (2-0) 2 Cr.
Factors affecting family expenditures for clothing. Clothing needs as affected by various psychological, social, and economic influences. Selection, purchasing, care and budgeting of clothing. The interrelationship of producers, distributors, and consumers.

Home Economics 514 *Seminar in Clothing and Textiles* (2-0) 2 Cr.
Prerequisite: Teaching experience or consent of instructor
Discussion and interpretation of recent developments in clothing and textiles. Individual reports.

Home Economics 544 *Workshop in Clothing and Textiles* (0-4) 2 Cr.
Prerequisite: Teaching experience
Opportunity for cooperative work in some aspect of clothing study.

Home Economics 551 *Problems in Clothing and Textiles* 2 Cr.
Identification, selection and completion of a problem in Clothing and Textiles culminating in a Plan B paper.

Home Economics 572 *Advanced Textiles* (1-2) 2 Cr.
Prerequisite: H.E. 315
Investigations and new developments in the textile field. Opportunity for individual problems.

FAMILY RELATIONS

Home Economics 427 *Workshop in Family Relationships and Mental Health* 1 Cr.
General orientation and specialized training in leading, counseling, and instructing others in the field of family relationships and mental health. Special work groups on personal problems, the techniques of marriage counseling, and the role of the school, the home, and the church in the field of family life education.

FOOD SCIENCE, NUTRITION, DIETETICS, AND INSTITUTION MANAGEMENT

Home Economics 300 *Applied Institution Mangement* (1-4) 3 Cr.
Prerequisite: H.E. 308 or parallel
Preparation and service of meals in the college tea room. Meal planning, recipe selection, economical use of materials and time, dining room management, food preparation, and cost control.

Home Economics 310 *Nutrition and Dietetics* (2-2) 3 Cr.
Prerequisites: H.E. 212 and Sc. 322
Fundamental principles of human nutrition applied to individual, family, community and world problems.

Home Economics 328 *Food Service Administration* 3 Cr.
Prerequisite or Parallel: H.E. 308
Organization and administration of food service in institutions. Personnel management, cost control, sanitation and housekeeping, and layout and equipment.

Home Economics 418 *Diet Therapy* (2-2) 3 Cr.
Prerequisites or Parallels: H.E. 310 and Sc. 115
Principles and methods of the use of diet as a therapeutic measure in certain abnormal conditions.

Home Economics 438 *Experimental Food* (0-6) 3 Cr.
Prerequisites: H.E. 230 and Sc. 115
Experimentation with selected food materials, techniques and equipment. Opportunity for directed study in an individually chosen area.

Home Economics 441 *Food Service Accounting* 3 Cr.
Prerequisite: H.E. 328
Fundamental principles of accounting. Preparation and use of accounting records, financial reports, food cost reports, and subsidiary food service records.

Home Economics 442 *Advanced Food Studies* (1-2) 2 Cr.
Prerequisites: H.E. 230 and 308
Based on the student's special interest in the field of food selection, preparation and appraisal.

Home Economics 443 *School Food Service* 2-3 Cr.
Prerequisite: H.E. 308 or equivalent
Laboratory in the college food service units with emphasis on well-balanced meals, and selling qualities of food through eye appeal, flavor and quality.

Home Economics 452 *Quantity Food Production and Service* (1-4) 3 Cr.
Prerequisites: H.E. 308 and 328
Theory and practice in 1 quantity food service including sanitation, cost studies, menu planning, principles of quantity food preparation and service, food receiving and storage, and use and care of equipment.

Home Economics 454 *Institution Food Purchasing* 2 Cr.
Prerequisite: H.E. 328
Methods of purchasing food in large quantities. Determination of standards, specific needs, and industrial offerings; formulation of specification, buying procedures and controls.

Home Economics 455 *Food Service Equipment* 2 Cr.
Prerequisite: H.E. 328
Equipment for institution food service. Materials, construction, operation, installation and use; layout analysis and planning.

Home Economics 463 *Problems in Food Service Administration*
Prerequisite: H.E. 328 (0-4 or 6) 2 or 3 Cr.
Directed individual work in selected problems. Laboratory problems in the college food service units.

Home Economics 476 *Nutrition Education for Elementary Grades* 2 Cr.
Basic nutrition for teachers of elementary school children.

Home Economics 501 *Trends in Nutrition* 2 Cr.
Prerequisite: H.E. 212
Practical application of recent developments in the field of nutrition.

Home Economics 508 *Food Seminar* 2 Cr.
Discussion and interpretation of recent developments in food preparation, food processing and food products. Choice of problems based on the needs and interests of the students.

Home Economics 511 *Nutrition Seminar* 2 Cr.
Prerequisite: H.E. 308
Discussion and interpretation of recent developments in fundamental and applied nutrition. Choice of problems based on needs and interests of students.

Home Economics 513 *Seminar in Food Service Administration* 2 Cr.
Prerequisite: H.E. 452
Discussion and interpretation of recent developments in institution management. Choice of problems based on needs and interests of students.

Home Economics 546 *Modern Methods in Food Preparation* 2-3 Cr.
Prerequisites: H.E. 230 and 308
Individual development of subject matter, evaluation instruments, instructional materials and demonstration techniques.

Home Economics 547 *Problems in Food Science and Nutrition* 2 Cr.
Prerequisites: Ed. 501 and 510
Identification, selection and completion of a problem in Food Science and Nutrition, culminating in a Plan B paper.

Home Economics 556 *Advanced Experimental Food* 3-4 Cr.
Prerequisite: H.E. 438
Principles of research methods applied to directed individual investigations in food preparation.

HOME MANAGEMENT AND FAMILY ECONOMICS

Home Economics 400 *Demonstration Techniques* (0-4) 2 Cr.
Prerequisite: H.E. 230
The application of demonstration principles in planning and presenting all types of demonstrations.

RELATED ART

Art 410 *Pottery* (0-6) 3 Cr.
Introduction to ceramic design and construction; pinch, slab, coil and wheel methods emphasized.

Art 423 *Problems in Home Furnishing* (0-4) 2 Cr.
Directed experiences in special problems related to design, construction, and arrangement.

Art 424 *Weaving* (0-4) 2 Cr.
Prerequisite: A. 106
Loom warping and weaving simple patterns concluding with woven projects.

Art 430 *Art History from Ancient through Medieval* (3-0) 3 Cr.
A cultural analysis of the interrelated fields of architecture, painting, sculpture, and the minor arts from ancient through medieval with emphasis on Egyptian, Greek, Roman, early Christian, and Gothic periods.

Art 431 *Art History From the Renaissance Through Contemporary* (3-0) 3 Cr.
A cultural analysis of the interrelated fields of architecture, painting, sculpture, and the minor arts from the medieval times to the present.

Art 436 *Costume Design* (0-4) 2 Cr.
Prerequisite: H.E. 218
Development of original designs for costumes, based on study of design sources.

Art 448 *Housing* (1-4) 3 Cr.
Housing as applied to community, lot, home, and family. Problems in cost, construction, housing materials, and architectural designing.

Art 460 *Creative Art* (0-4) 2 Cr.
Prerequisite: A. 106
Creating through experimentation in various art media such as paper, paint, plastic, wood, and metal.

Art 470 *The Teaching and Supervision of Art* (2-0) 2 Cr.
Prerequisite: Senior Standing
Basic types of art expression as a foundation for teaching methods adjusted to age and ability groups; experience in selecting, evaluating, and organizing material for teaching units and projects.

Art 526 *Seminar in Related Art* (2-0) 2 Cr.
Prerequisite: A. 106
Flexible course in which the interests and needs of students are given important consideration. Fundamental material in the integration of art with home economics subject matter.

Industrial Education

Many courses in this group are scheduled on the quarter or nine-week basis and meet daily. Due to the variation in the types of content included in these courses, the following tabulation is given to indicate the time requirements for credits. Figures in parentheses indicate approximate hours in preparation.

1 hour per week	(2)	18 weeks	1 semester hour
2 hours per week	(1)	18 weeks	1 semester hour
3 hours per week	(0)	18 weeks	1 semester hour
6 hours per week	(0)	9 weeks	1 semester hour
10 hours per week	(2)	9 weeks	2 semester hours
12 hours per week	(0)	9 weeks	2 semester hours

GENERAL

Industrial Education 425 *Industrial Arts for Elementary Teachers* (0-10) 2 Cr.
Development, philosophy, objectives, and course organization for industrial arts for the elementary schools. Suitable laboratory work in woods, metals, plastics, and drawing.

Industrial Education 490 *Technical Field Experience* 1-6 Cr.
Prerequisite: Consent of department head and dean
Advanced work in technical major. Attendance at industrial schools usually scheduled during summer sessions. Report required.

Industrial Education 542 *Advanced Technical Problems—General Shop* 2-6 Cr.
Prerequisites: Ed. 501 and six semester credits in general shop, and consent of head of General Shop Department
Advanced technical work, experimental work, technical reports in the general shop.

ELECTRICITY

Industrial Education 439 *Industrial Electronics* (0-10) 2 Cr.
Prerequsite: I.E. 343
Analysis of electronic circuits as applied to control of industrial processes. Circuits such as timing, heating, counting, measuring, speed control, and other special purpose circuits are studied and tested. Aircraft electronic control circuits are presented for analysis.

Industrial Education 544 *Advanced Technical Problems—Electricity* 2-6 Cr.
Prerequisites: Ed. 501, six semester credits in Electrical field, consent of Head of Electricity Department
Advanced technical work for specialists in the electrical field. Recent developments, advanced technical work, experimental work, and technical reports in electricity.

INDUSTRIAL GRAPHICS

Industrial Education 541 *Advanced Technical Problems—Industrial Graphics* 2-6 Cr.
Prerequisites: Ed. 501, six semester credits in drafting field, consent of Head of Industrial Graphics Department
Advanced technical work for specialists in the drafting field. Recent developments, advanced technical work, experimental work and technical reports in drafting.

Industrial Education 563 *Design in Industrial Education* 2 Cr.
Prerequisites: I.E. 118 and 121
Survey of current design theories and literature; design procedure and evaluation; design supplementation in the laboratory; specialized instruction and experiences in representational drafting techniques.

METALS

Industrial Education 461 *Tool and Die Making* (0-10) 2 Cr.
Prerequisites: I.E. 237 and Ed. 501
Operations and related technical information units for selecting examples of single station cutting dies; drawing, expanding, non-cutting, assembling, progressive, and finishing dies; permanent molds. Layout work, methods of fabrication, and machine tool operations involved planned by the student.

Industrial Education 462 *Maintenance of Metalworking Equipment*
Prerequisites: I.E. 235 and 445 (0-10) 2 Cr.
Practice in installation, preventive maintenance, and repair of machine tool equipment. Sharpening of cutting tools; maintaining an adjustment and lubrication schedule; ordering repair parts and supplies; storage and arrangement of tools and supplies.

Industrial Education 477 *Metals Production and Processes* 2 Cr.
The study of extraction, smelting, refining and processing of metals. Student may elect area of metal processing for concentration.

Industrial Education 545 *Advanced Technical Problems—Metals* 2-6 Cr.
Prerequisites: Ed. 501, six semester credits in Metals field, consent of Head of Metals Department
Advanced technical work for specialists in the metals field. Recent developments, advanced technical work, experimental work and technical reports in metals.

PHOTOGRAPHY

Industrial Education 405 *Advanced Photography* (0-10) 2 Cr.
Prerequisite: I.E. 205
Advanced techniques in monochromatic photography and the fundamentals of color photography including color film development and color printing. Students required to provide suitable cameras.

POWER MECHANICS

Industrial Education 547 *Advanced Technical Problems—Power and Transportation* 2-6 Cr.
Prerequisites: Ed. 501, six semester credits in the power and transportation field, consent of Head of Power and Transportation Department
Advanced technical work for specialists in the power and transportation field. Recent developments, advanced technical work, experimental work, and technical reports in power and transportation.

PRINTING

Industrial Education 543 *Advanced Technical Problems—Graphic Arts* 2-6 Cr.
Prerequisites: Ed. 501, six semester credits in Graphic Arts field, consent of Head of Graphic Arts Department
Advanced technical work for specialists in the graphic arts field. Recent developments, advanced technical work, experimental work, and technical reports in graphic arts.

WOOD TECHNICS

Industrial Education 440 *Plastics II* (0-10) 2 Cr.
Prerequisite: I.E. 203
Technical information and product development. Construction of molds and forms for molding, casting, laminating, foaming, and thermoforming.

Industrial Education 464 *Tool and Machine Conditioning* (0-10) 2 Cr.
Prerequisite: I.E. 103
Technical information on woodworking equipment, cutting theory, safety, and shop organization. Maintenance of woodworking machines, saw fitting, and general hand tool fitting.

Industrial Education 546 *Advanced Technical Problems—Woodworking* 2-6 Cr.
Prerequisites: Ed. 501, six semester credits in Woodworking, consent of Head of Wood Technics Department
Advanced technical work for specialists in the woodworking field. Recent developments, advanced technical work, experimental work, and technical reports.

Industrial Technology

Industrial Education 400 *Quality Control* 2 Cr.
Prerequisite: I.E. 290
Establishment of quality standards, inspection, principles, and organization; application of sampling methods and theory; corrective action.

Industrial Education 410 *Production Control* 2 Cr.
Prerequisite: I.E. 290
Introduction to industrial plant operation; production planning and control. Forecasting, inventory control. Production requirements; routing, scheduling and coordination of production.

Industrial Education 420 *Time and Motion Study* (2-4) 2 Cr.
Prerequisite: I.E. 290
Introduction to methods improvement in industry including developing better methods, process analysis, activity charting, operation analysis. Micromotion study. Fundamental hand motions, motion economy, determining standard times, work sampling, operator training, and evaluating and controlling factors.

Industrial Education 460 *Advanced Industrial Management* (4-0) 2 Cr.
Prerequisite: Senior Standing in Industrial Technology
Advanced industrial engineering and management problems assigned on an individual or small group basis. Comprehensive use of prior course work by role playing, conferences, presentations, written reports, etc, related to actual and simulated case problems and dynamic industrial games.

Liberal Arts and Sciences

ENGLISH

English 410 *Writing and Selling Feature Articles* 2 Cr.
Prerequisite: E. 102b
Practice in techniques of writing and selling feature articles for appropriate markets. Students are required to submit articles for potential publication.

English 415 *Technical Writing for Home Economics* 3 Cr.
Prerequisite: E. 346 or consent of instructor
An overview of specialized writing done by home economists in business. Experience in preparing reports, letters, and other appropriate materials.

English 416 *Technical Writing for Industry* 3 Cr.
Prerequisite: E. 346 or consent of instructor
A survey of the type of writing current in industry. Writing of business reports and other materials.

BIOLOGY

Science 432 *Heredity and Eugenics* 2 Cr.
The essential principles of genetics and eugenics and their application to the human family. Physical, physiological and mental traits in man; positive and negative eugenics and euthenics.

Science 442 *Community Hygiene* 2 Cr.
Disease prevention through education, sanitation, isolation and immunization. Public health programs and operation of federal and state laws.

PHYSICS

Science 425 *Physics—Strength of Materials* (2-2) 3 Cr.
Prerequisite: M. 213 or 250b
Fundamental theory of strength of materials. Analysis of tension, compression, shear, biaxial tension and compression, torsion, stresses and deflection of beams, statically indeterminate beams, and theory of columns.

Science 429 *Physics-Modern Physics* 3 Cr.
Prerequisites: Sc. 421 and 423
Elements of atomic and nuclear physics and the industrial application of atomic energy.

Science 431 *Physics—Statics* (2-0) 2 Cr.
Essential elements of statics including simple force systems, theory and application of non-concurrent forces, couples, friction, non-coplanar forces, trusses, and other structures.

Science 433 *Physics—Dynamics* (2-0) 2 Cr.
Essential elements of dynamics including rectilinear, angular, and harmonic motions; forces producing motion, work, energy, momentum, and power.

SOCIAL SCIENCE

Social Science 326 *Marriage and the Family* 2 Cr.
A socio-psychological study of the family designed to aid the unmarried as well as the married student. Consideration of major personal and social issues confronting the family today.

Social Science 407 *History of the Americas* 3 Cr.
History of the United States of America, broadened to include parallel developments of Latin America and Canada.

Social Science 409 *Recent History of the United States* 2 Cr.
American history in the twentieth century. Study of recent world developments in which the United States has played a part.

Social Science 410 *Modern World* 3 Cr.
Modern trends in terms of historical backgrounds providing a frame of reference for interpreting the contemporary world. United Nations.

Social Science 411 *Problems of American Society* 2 Cr.
Application of the understandings of sociology to selected social problems. Social expectations and values related to actual behavior. Problems of individuals, of groups, and of societies.

Social Science 414 *Labor Problems* 2 Cr.
Background and history of organized labor, chiefly in Western industrial societies. Collective bargaining as viewed by labor, management, government, and the public. Combines basic labor economics with a study of the institutions involved in modern labor relations.

Social Science 417 *American Politics* 3 Cr.
Prerequisite: S.S. 311
Analysis of modern political parties. Nominating methods, campaigns, elections, practical politics in legislative bodies, and machines and bosses.

Social Science 418 *History of Modern Russia* 2 Cr.
Survey of significant developments in Russia since 1815.

Social Science 420 *Introduction to Cultural Anthropology* 3 Cr.
Survey of the field of anthropology emphasizing varieties of culture and cultural behavior; the processes of cultural diffusion and change.

Social Science 430 *Sociology of the Community* 3 Cr.
Prerequisite: S.S. 309
Influences of geography, population characteristics, economy, political structure, and culture on communities; community development and planning.

Social Science 440 *Sociology of Work* 3 Cr.
Study of human behavior in varying types of employment and occupations; values sought and attained in employment; employer-employee role behavior as a social system in relation to personality needs; basic trends in the occupational structure of American society.

Social Science 450 *Managerial Economics* 3 Cr.
Prerequisite: S.S. 201
To provide understanding of price and output theory, market analysis, financial management, and the managerial decision-making process.

Social Science 455 *Sociological Theory* 3 Cr.
Contributions of major social theorists, critically analyzed in terms of their times, concepts, variables, and relationships they propose, their usefulness for research purposes; chief components of contemporary general sociological theory.

Social Science 460 *Juvenile Delinquency* 3 Cr.
Prerequisite: S.S. 309
Definitions and trends of deviant behavior among youth; research findings; efforts toward prevention, control, and treatment.

Social Science 475 *Sociology of Minority Groups* 3 Cr.
Prerequisite: S.S. 309
Social-psychological aspects of the interaction between majority and minority groups; basic statistics about minorities in the United States and research findings.

SPEECH

Speech 406 *Communication Skills for Education Leadership* 2 Cr.
Prerequisite: Sp. 106
Leadership techniques and communication skills for use in the classroom and educational activities; an approach to leadership attitudes and skills of democratic leadership in leading and participating in educational activities and classroom teaching.

Speech 470 *Radio and Television Workshop* 2 Cr.
Prerequisite: Sp. 106
Radio and television station procedures; techniques and methods in planning, directing, and producing programs; participation in actual broadcasts.

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